General Paul J. Kern: A Case Study in Decision Making at the U.S. Army Materiel Command

By
COL Thomas Newman, Director, CG Staff Group,
in collaboration with LTC Juan Arcocha,
CG Staff Group

Edited & Published by the
AMC History Office

May 2006

U.S. Army Materiel Command Historians and Curators

Headquarters, U.S. Army Materiel Command

ATTN: AMCHO (Room 1SW1007), 9301 Chapek Road,
Fort Belvoir, VA 22060-5527
Phone: (703) 806-8776

Dr. Robert G. Darius, AMC Command Historian
dariusb@hqamc.army.mil
Dr. William T. Moye, Senior Historian
moyew@hqamc.army.mil
Mr. Richard L. Wiltison II, Historian
wiltisonr@hqamc.army.mil
Mr. Gregory S. Byard, Developmental Assignment
gbyard@hqamc.army.mil

FIELD HISTORICAL OFFICES

Army Field Support Command/Joint Munitions Command, ATTN: AMSFS-HI, 1 Rock Island Arsenal, Rock Island, IL 61299-6000, Phone: (319) 782-1450
Mr. George B. Eaton, Command Historian
E-Mail: george.eaton@us.army.mil

Armament Research, Development, and Engineering Center, ATTN: AMSRD-AAR-AO, (Building 2), Picatinny Arsenal, NJ 07806-6756, Phone: (973) 724-2797
Dr. Patrick J. Owens, Historian
E-Mail: powens@pica.arm.mil

Aviation and Missile Life Cycle Management Command
ATTN: AMSAM-GS-H (Building 5300, Room 5135), Redstone Arsenal, AL 35898-5010, Phone: (256) 876-0564
Mr. Michael E. Baker, Command Historian
E-Mail: michael.baker@redstone.army.mil
Dr. Kaylene Hughes, Historian
E-Mail: kaylene.hughes@redstone.army.mil
Mr. Claus Martel, Historian-Archivist
E-Mail: claus.martel@redstone.army.mil

Communications-Electronics Life Cycle Management Command, ATTN: AMSEL-PE-OD, (Building 1207), Fort Monmouth, NJ 07703-5020, Phone: (732) 532-3736
Ms. Wendy Réjàn, MSC Historian
E-Mail: wendy.rejan@us.army.mil

Research, Development, and Engineering Command,
ATTN: AMSRD-CIH (Building E5027), 5183 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424, Phone: (410) 436-4430
Mr. Jeffery K. Smart, Command Historian
E-Mail: jeffrey.smart@us.army.mil

Security Assistance Command, ATTN: AMSAC-SA, (Building 219), 5701 21st Street, Fort Belvoir, VA 22060-5940, Phone: NA
Vacant

Tank-automotive and Armaments Life Cycle Management Command, ATTN: AMSTA-CS-P (History, G5), Mail Stop 432, 6501 East 11 Mile Road, Warren, MI 48397-5000, Phone: (586) 574-8086
Ms. Ann M. Bos, Command Historian
E-Mail: ann.bos@us.army.mil
Mr. Randy R. Talbot, Staff Historian
E-Mail: randy.talbot@us.army.mil

MUSEUMS AND HISTORICAL HOLDINGS

Rock Island Arsenal Museum, ATTN: SOSRI-CF-MUS, 1 Rock Island Arsenal, Rock Island, IL 61299-5000, Phone: (309) 782-5021
Ms. Kris G. Leinicke, Director
E-Mail: leinickek@ria.army.mil

Watervliet Arsenal Museum, ATTN: AMSTA-XO-I, Watervliet Arsenal, 1 Buffington Street, Watervliet, NY 12189-4000, Phone: (518) 266-5805
Mr. John Swantek, Director
E-Mail: john.swantek@us.army.mil

Communications-Electronics Museum, ATTN: SELFM-PTM-MU, Kaplan Hall, Building 275, Fort Monmouth, NJ 07703-5103, Phone: (732) 532-1682
Ms. Mindy Rosewitz, Director
E-Mail: mindy.rosewitz@us.army.mil

Library of Congress Control Number: 2005938145.

U.S. Army Materiel Command Historical Monograph Program

Historians prepare historical monographs and special studies in order to document contributions to and lessons learned by large organizations. The historical program focuses on a wide range of Army logistical issues such as: materiel acquisition, research and development, readiness and sustainment. These publications serve as the conduit through which the institutional knowledge and experience is preserved.

This monograph, *General Paul J. Kern: A Case Study in Decision Making at the U.S. Army Materiel Command*, is approved for public release and distribution by:

WILLIAM E. MORTENSEN
Lieutenant General, USA
Deputy Commanding General

This page intentionally left blank

Foreword

The Army as an institution has meticulously recorded its history throughout the past 228 years. The U.S. Army Center of Military History (CMH) has an archive replete with millions of photos, thousands of paintings, and reams of paper that describe the evolution of our nation as viewed through the eyes of soldiers. The Army has been especially thorough in recording the changes of our tactical units as they have evolved to meet new challenges, advancing technology, or distinct enemy strategies and tactics.

The evolution and change of our logistics and Table of Distribution and Allowances (TDA) organizations, however, have not been as meticulously recorded. Historians are left to speculate if changes in TDA and support structures are a result of efficient execution of pre-analysis, happenstance, or simply a series of reactions to tactical, operational, or fiscal realities.

This work is intended to describe to the up and coming senior leader the process used by me as a senior logistician to transform Army logistics during a period of rapid change within the Army. It is my sincere hope that this work will give you a glimpse into the stimulus for action, and the inputs, advice, and observations I used to drive the decisions I made during my tenure as the Army's senior uniformed Logistician. When writing about senior level decision-making, a lot of paper is spent discussing the process without addressing the greatest intangible in the process, those perceptions, pre-conceptions, observations and life experiences a senior leader brings into a position upon arrival.

One of the most important functions of any strategic leader is to think and communicate ideas effectively. A leader must understand the basis of today's information systems and the relevance of technology to today's strategic environment. A strategic leader must always remember that the basic nature of most organizations is to resist change.

Many have not yet recognized that the proliferation of technology is forcing changes that profoundly affect organizations as well as their leaders. The national security environment is no exception and may be feeling the effects of this change sooner than the rest of society as a whole.

Army Materiel Command has changed significantly over the past three years both to remain relevant to a transforming Army and to accomplish our war-time mission. This work attempts to capture the decision-making process involved in instituting this change, in order that this important period of Army history and logistics transformation may be fully understood and executed to ensure the success of our Army into the future.

Fort Belvoir, Virginia
November 4, 2004

PAUL J. KERN
General, USA

This page intentionally left blank

Introduction

Decision-making at the senior level of military leadership is a topic that is rarely discussed with those who are not part of the process. This is particularly true during and soon after decisions are made. While historical analysis of leaders' decisions is useful, it usually comes too late to be usable to the generation of military professionals who are tasked with implementing and executing the decisions recently made at the top.

The purpose of this study is to shed some light for current Senior Service College students on some of the key decisions senior Army leaders have made in the last three years. Decisions made during the pressure of events in the wake of the attacks of September 11, 2001 will have consequences for the Army and the Nation for years to come. Understanding the background and context of the decision making environment should assist the next generation of senior leaders in executing their missions and correcting course when necessary.

Decisions on logistics that involve or affect the national industrial base, which in turn affect National and Combatant Commander operations and plans, are complex due to the number of players in the process. Decisions involving procurements are similarly complex. The Congress, the Department of Defense, the Army Staff, Army Major Commands, Joint Combatant Commanders, local governments, the media, and the workforce are all part of the process. This complexity contributes to a slow and cumbersome process in peacetime, which improves only marginally in wartime. The magnitude of the decisions and the potential impact that national-level decisions have demand the involvement or at least the consideration of some or all of the actors previously identified.

The following pages will look at the efforts of the Army's industrial base to support the war efforts in Afghanistan and Iraq, while simultaneously sustaining readiness in every other Army theater. Decisions made by Army leaders in the 1990s have enormously impacted our operations in the first years of the twenty-first century. How we lived with those decisions, adjusted them where possible, and what new decisions were made will be the focus of this paper.

This study was completed by Colonel Thomas Newman, Director, CG Staff Group at the Headquarters, U.S. Army Materiel Command. He was encouraged to undertake this effort by General Paul J. Kern, then Commanding General of the U.S. Army Materiel Command, who assisted in the completion of the text. Special recognition should be given to Lieutenant Colonel Juan Arcocha, also of the CG Staff Group, for his insights and support. Editorial assistance was provided by Mr. Richard L. Wiltison of the AMC Historical Office.

WILLIAM E. MORTENSEN
Lieutenant General, USA
Deputy Commanding General

GEN Paul J. Kern
AMC Commanding General
30 October 2001 – 5 November 2004

Biography of General Paul J. Kern

General Paul J. Kern assumed the duties of Commanding General, U.S. Army Materiel Command on 30 October 2001. Prior to this assignment, he served as the Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology.

General Kern has served as the Commander, 4th Infantry Division (Mechanized); the Senior Military Assistant to the Secretary of Defense and Deputy Secretary of Defense, Washington, D.C.; and the Director of Requirements (Support Systems), Office of the Deputy Chief of Staff for Operations. Earlier in his career, he served as Team Chief, Light Combat Vehicle Team, Office of the Deputy Chief of Staff for Research, Development, and Acquisition, Washington, D.C.; and as the Program Branch Chief, Bradley Fighting Vehicle Systems, Warren, Michigan. He taught weapon systems and automotive engineering at the U.S. Military Academy and was the department's research officer.

General Kern has served three combat tours with the U.S. Army. As the Commander of the 2d Brigade, 24th Infantry Division during Desert Shield/Desert Storm, he led the attack on Jalibah Airfield, allowing the 24th ID to close escape routes across the Euphrates. He also served as the Assistant Division Commander of the 24th after its redeployment to Fort Stewart, Georgia. As a junior officer, he began his career with two combat tours in Vietnam with the 11th Armored Cavalry as a platoon leader and troop commander.

General Kern has been associated with all Army Transformation efforts since 1996. As a Division Commander of the 4th Infantry Division (Mechanized), Fort Hood, Texas, he led the way in developing network centric warfare ideas and capabilities. Consolidating logistics functions and personnel into the Division Support Command also significantly reduced the logistical footprint of the 4th ID.

General Kern has received the Society of Automotive Engineers Teeter Award and the 2002 Alumni Society Medal from the University of Michigan for his contributions to the engineering field. He has also received the German Cross of Honor of the Federal Armed Forces (Gold).

Other awards and decorations include the Defense and Army Distinguished Service Medals, Silver Star, Defense Superior Service Medal, Legion of Merit (with Oak Leaf Cluster), Bronze Star Medal with "V" Device (with Oak Leaf Cluster), Bronze Star Medal (with two Oak Leaf Clusters), and Purple Heart (with two Oak Leaf Clusters).

General Kern was commissioned as an armor lieutenant following graduation from the U.S. Military Academy at West Point. His education includes master's degrees in both Mechanical and Civil Engineering from the University of Michigan, and a Senior Service College Fellowship at Harvard University.

This page intentionally left blank

TABLE OF CONTENTS

Title **Page**

AMC: A Brief History 1962 - 2001

The Army Materiel Command (AMC) can trace its history back to the 1960s. Originally established in 1962, it combined the logistics missions of the technical services (quartermaster, ordnance, medical, etc). These services were consolidated under a single command to reduce redundancy and increase efficiency. AMC was initially organized into five major commodity subordinate commands; Electronics Command, Missile Command, Munitions Command, Mobility Command, and Weapons Command; and two functional subordinate commands; Supply and Maintenance Command (SMC) and Test and Evaluation Command (TECOM). In addition, 36 project manager (PM) offices were established to manage the development of major weapons systems and equipment.

Shortly after its creation, AMC went through a number of reorganizations. Changes in AMC's organizational structure coincided with the War in Vietnam, the Cold War stand off with the Soviet Union, and the downsizing after Desert Storm. One of the most significant changes occurred after the passage of the Goldwater-Nichols Defense Reform Act of 1987. AMC transferred the Army's weapon systems and equipment acquisition mission, along with Program Executive Officers and Program Managers, to the Army Acquisition Executive (AAE). By 2001, AMC consisted of just over 50,000 soldiers and civilian employees, distributed among seven MSCs and over one hundred separate installations. AMC's mission statement was to "*Develop, Acquire, Equip, and Sustain Dominant Land Force Capability to Defend the United States and its Allies."*

2001: The Logistics War Begins: Enduring Freedom and Noble Eagle

Prior to September 11, 2001, AMC was a reflection of the military as a whole. Years of logistics consolidation, asset and warehousing downsizing, and budget constraints had reduced available assets to levels geared to support efficient peacetime operations. AMC and the Army grappled with Congressional and Department of Defense regulatory requirements directing the services to implement more transparency and rigor in financial and operational reporting and tracking. Additionally, the Army, always slow to change, was attempting to transform both its forces and its business process to meet strategic, operational and tactical challenges.

Like most military commands near the end of a fiscal year, AMC was short of money. Ammunition, for example, had a huge shortfall between on hand quantities and what war plans and training requirements demanded. In 2001, AMC calculated the Army needed to spend $900M+ on ammunition to prepare for war and to resource training, but eventually received only $92M. The Single Stock Fund (SSF) conversion, an enormous and complicated change in the way the Army managed both its stocks of repair parts and the money to pay for them, was being implemented on a deliberate five year timeline to be completed by 2003. This initiative generated an intense workload and forced the Army to confront huge funding issues.

The National Maintenance Program (NMP), an AMC initiative to standardize the repair of critical components of the fleet, was beginning to define and implement standards. Spare parts of all types had been under-funded throughout the 1990s – a deliberate decision made by the Army leadership to live off our Cold War stockpile, but by 2001 most of the Cold War's

excess resources were gone. The BA 5590 battery, for example, was especially important, and the short-fall, was noted, but the Army could not afford to buy additional stocks. The Commanding General (CG) of AMC emphasized the status and readiness of the Army Prepositioned Stocks (APS), with the result that these fleets of equipment were generally in good condition.

Although the attacks of September 11, 2001 will always be considered the wake-up call, security of the homeland had received some attention within AMC prior to that catastrophe. The Y2K event alerted the Army and AMC to the dual facts of our reliance on automation and our vulnerability to cyber attack. AMC learned many lessons while addressing Information Awareness and Vulnerability Assessment (IAVA) challenges in 2000 and 2001. As the country focused on Y2K lessons learned and moved to better protect its automation, new considerations began to emerge. In addition to continued terrorist attacks around the world, missiles were tested in North Korea and tensions between China and Taiwan emerged. The possibility of an enemy striking the American homeland or American allies with missiles armed with chemical, biological, high explosive, or nuclear warheads could not be ignored. Development and testing of a Ballistic Missile Defense System (BMDS) became a priority for the Department of Defense. Within AMC Headquarters, a concerted effort was underway to reduce the vulnerability of the AMC Headquarters building, located in a high-rise in Alexandria, Virginia.

The terrorist attacks of September 11, 2001 changed the world as we knew it. The President addressed the nation and vowed to "find those responsible and bring them to justice." Reaction from international leaders was swift as world leaders reacted to the attacks. President Bush vowed that America will "lead the world to victory" over terrorism in a struggle he termed the first war of the 21st Century. The U.S. military went on high alert, enacted extensive force protection measures, and reexamined and revised training schedules, war plans, and readiness indicators.

On September 15, 2001, President Bush authorized a partial mobilization of the Reserves for homeland defense and civil missions in response to the terrorist attacks. While the authorization allowed the Secretary of Defense to call up to a million Reserve Soldiers, Airmen, Sailors, Marines, and Coast Guard members for up to two years of active duty, the services needed only 35,000 total personnel between them for the stated missions, collectively dubbed Operation Noble Eagle.

The Army Materiel Command watched as an enemy used our own civilian airliners as weapons against U.S.. This made the U.S. ponder the fact that many of our sites - including our stockpile of cold war chemical weapons - could provide our enemy other weapons of mass destruction, on our soil. On September 11, 2001, AMC had more than 31,000 tons of chemical weapons: nerve and mustard agents in bombs, rockets, mines, and multiple-ton containers sitting in eight different storage locations. Some of these munitions dated back to 1942, and some of the chemical stockpile sat in outside storage. Security varied from place to place, but it clearly was inadequate given the new threat.

In addition, there were organic industrial sites and facilities conducting classified research that provided tempting targets for terrorists. All had to be secured quickly. To

accomplish this, more than 21,000 Army National Guard and Army Reserve Soldiers were mobilized and deployed to 34 different locations in the continental United States. At chemical facilities, AMC spent over 28 million dollars to construct hardened storage facilities and other force protection improvements to reduce vulnerabilities. Industry and the Army's research and development community also helped identify technological solutions to reduce the requirement for military manpower to accomplish these missions

Homeland Security/Homeland Defense

A new category of hero emerged from 9/11. Firemen, policemen, and medical support personnel were seen in a new light, namely the frontline. Their needs in their Homeland Defense roles are very similar to the needs of soldiers in combat, and the technologies applied to support soldiers could also be leveraged to support them. Communications issues emerged as cell phones, networks, and more were paralyzed and became ineffective. The Army Materiel Command, mustering an impressive array of technical expertise and research talent, played a key role in these early Homeland Defense efforts. AMC's Communications-Electronics Command (CECOM) responded rapidly, and its staff provided communications support at Ground Zero. In the weeks and months following the attacks, CECOM continued to participate in various initiatives and projects designed to improve the command and control capabilities of first responders and civil organizations working Homeland Defense issues.

General Paul J. Kern, Commanding General, Army Materiel Command

Against this backdrop of national emergency, a nation at war, and with the Army Materiel Command assuming new responsibilities in the national defense, General (GEN) Paul J. Kern assumed command of AMC on October 30, 2001. His previous assignment as the Military Deputy/Director, Army Acquisition Corps, Office of the Assistant Secretary of the Army, (Acquisition, Logistics, and Technology), Washington, DC, with duty in the Pentagon, gave him first-hand knowledge and experience of the effects of terrorism, as well as the direction of the Army leadership. His training as an engineer, his prior assignments as an armor commander from platoon through division, plus his extensive experience in weapons systems acquisition, gave him a perspective on logistics that differed radically from the AMC Commanders that preceded him. Just as importantly, GEN Kern's extensive contacts with academia, developed continuously since his days as an engineering instructor and researcher at West Point, gave him insights into emerging technologies, research efforts, and process initiatives that were unknown to most military professionals. GEN Kern would exploit these unique skills in the months ahead as the Army sought solutions to the challenges it faced.

Operation Enduring Freedom (OEF)

Operation Enduring Freedom, the name for the American invasion of Afghanistan, was one of the first real tests of the Army's vision for the 21st Century. This emerging doctrine called for forces that could deploy quickly and arrive anywhere on the globe with all the firepower needed to achieve decisive victory. In addition to the Army's mix of conventional light, heavy, and airborne/air assault forces, the doctrine relied heavily on contributions of special operations forces and joint firepower provided by the Air Force and Navy. The new model of warfare

called for rapid action against an enemy, using all available means to rapidly achieve the domination and submission of the enemy. This eliminated the need for lengthy buildups of combat power and logistics stockpiles.

Operation Enduring Freedom commenced on October 7, 2001. The initial military objectives of OEF included the destruction of terrorist training camps and infrastructure within Afghanistan, the capture of Al Qaeda leaders, and the cessation of terrorist activities in Afghanistan. Finally, military force would help facilitate delivery of humanitarian supplies to the Afghan people.

The Army forces involved in Operation Enduring Freedom included Special Operations Forces, including Special Forces A Teams that organized, trained, and led indigenous Afghan resistance fighters against the Taliban. Troops from the 10th Mountain Division deployed to Uzbekistan to secure staging bases for logistics, aviation, and quick reaction force movements into Afghanistan. By the end of November 2001, soldiers from the 101st Air Assault Division had deployed to three air bases in Pakistan used by U.S. forces. Special Operations Forces on the ground used hi-tech radios, global positioning systems, and laser designators to call in air strikes on Taliban positions with pinpoint accuracy. Afghan ground forces attacked in the wake of U.S. air strikes and overpowered shocked and demoralized Taliban formations. Despite the distance from U.S. or allied bases, the U.S. military and its Afghan allies quickly put the enemy on the run.

Logisticians from Fort Bragg's I Corps Support Command (COSCOM) and the Special Operations Support Command (SOSC) deployed into the primitive forward bases in Uzbekistan and Pakistan as well. They received forces deploying into theater, provided all classes of logistics support to all services' personnel, and pushed support forward to the soldiers operating in Afghanistan. Logisticians in Germany set up massive parachute rigging operations that allowed the aerial resupply of everything soldiers in contact needed, from bullets to blankets to feed for the horses some of the soldiers rode. A massive quantity of humanitarian rations, and other supplies such as blankets, were also rigged and airdropped to prevent a humanitarian disaster.

In less than three months, the Taliban and their Al Qaeda henchmen were either dead, in prison, or in exile in remote mountain hideouts in Pakistan. With no direct land line of support into Afghanistan, the U.S. military had used an innovative combination of air power, special operations forces, indigenous forces, and conventional forces to liberate Afghanistan. Logistical support had been provided from a variety of austere forward operating bases (FOB), manned by a light logistics forces on the ground that were backed up by established infrastructures in the Continental United States (CONUS) and Europe.

While the Afghanistan campaign continued, other fronts in the Global War on Terrorism (GWOT) opened up in the Horn of Africa and in the Philippines. AMC's challenge was to maintain situational awareness of logistical requirements everywhere so that priorities could be shifted when necessary to ensure support to soldiers in combat. The other challenge that immediately emerged revolved around AMC's traditional "face to the field," its Logistics Assistance Officers (LAOs) and Logistics Assistance Representatives (LARs).

Logistics Assistance Program (LAP)

The Logistics Assistance Program oversees AMC's essential link to soldiers in the field by maintaining a multifunctional, highly mobile, Table of Distribution and Allowances (TDA) organization of military and emergency-essential deployable civilian logistics technicians and equipment. When combat or contingency operations begin, logistics assistance offices deploy from their peacetime locations to the theater and become command and control centers known as logistics support elements (LSEs), which integrate all Army Materiel Command functions in theater. The LAP also serves as the agent within AMC that coordinates assignment, support to, and replacement of LARs and LAOs between AMC subordinate commands. This task swiftly became a topic of major importance as the campaign in Afghanistan unfolded.

Within four months of the September 11 attacks, AMC's Operations Support Command (OSC) had established three LSEs in forward positions in Afghanistan and one in Uzbekistan. AMC LAOs (usually a Lieutenant Colonel [LTC] assigned to a division) and LARs (assigned by their specialty, e.g., ground systems) deployed to Southwest Asia with their supported units, in some cases very early in the flow. Their value as a combat multiplier consisted not only of their expertise in supply and maintenance topics, but also in the communications package they deployed with. In the 1990s, AMC invested in the Multi-Modal Communications System (MMCS), a satellite-based communications package that allowed the LAO to communicate via telephone, Non-Secure Internet (NIPR), and Video Tele-Conferencing (VTC). Units soon discovered that their supporting LAO and LARs had reliable communications links directly back to CONUS. In addition to facilitating logistics support, this investment had the unintended effect of making the LSEs a key communications node for supported forces – and thus a semi-permanent fixture in theater.

An early challenge the LSEs faced in Afghanistan and the neighboring nations was shelter for the force. Deployment of thousands of soldiers to a war-ravaged nation in the middle of the winter exposed them to hardship and the risk of cold-weather injuries. An answer existed in the Force Provider sets that the Army purchased after Desert Storm. A Force Provider module consists of a complete life support package for 550 personnel: bunks, kitchen, latrines, showers, climate control, even recreation. Unfortunately, Army Doctrine called for these sets to be set up and operated by Army Reserve personnel, who could not deploy in time to complete the mission. As Force Provider modules (packaged in containers) flowed into Uzbekistan and then Afghanistan, the LSEs took on the mission of receiving them, accounting for the property, and assisting in the set up. Improvising a solution on the spot, LSE personnel incorporated available soldier labor, manufacturer Field Service Representatives (FSRs), and close communications with Force Provider experts back in CONUS to set up and operate these facilities. The teamwork between Army Materiel Command elements in the United States and the forward elements around the world ensured, in this case and in many others, that the war fighters had everything they needed to fight and win on the battlefield.

GEN Kern faced some critical decisions regarding support to operations in Afghanistan almost before his change of command ceremony ended. The size of the LAR/LAO package taxed AMC's resources. The unraveling of the Force Provider set-up and operations plan similarly demanded some immediate reprioritization of assets. GEN Kern mobilized AMC employees to

augment the LAR program, ordered a review of tour policies to ensure that an indefinite campaign could be supported, and ordered the AMC Deputy Chief of Staff for Personnel (DCSPER) to initiate accelerated hiring plans to correct identified personnel shortages in the LAP. Similarly, he personally contacted equipment manufacturers to ensure that industry placed their expert employees forward to support essential equipment like Force Provider. Orienting the Army Materiel Command to focus on logistics support thousands of miles from CONUS would become a salient characteristic of GEN Kern's command tour.

Logistic Support Element – Central Command (CENTCOM)

Soon after the first bomb fell on Afghanistan, all aspects of AMC support were required in and near the combat zone. The rapid escalation of support requirements to operations in and around Afghanistan demanded a forward, overall AMC Command and Control headquarters to coordinate support across CENTCOM's Area of Responsibility (AOR). This Logistics Support Element (LSE) structure formed an integral part of the theater support structure of the 377th Theater Support Command (TSC), CENTCOM's assigned theater logistics command.

On 1 December 2001, the LSE South West Asia (LSE SWA) was officially established at Camp Doha, Kuwait, to support ongoing operations in Afghanistan, Uzbekistan, Pakistan, and the Horn of Africa. Initially, the LSE consisted of 12 personnel from CONUS, plus the Commander and Staff from the AMC Combat Equipment Group SWA, located in Qatar. LSE SWA collocated with the 3d U.S. Army's G4 (later to become the Combined Forces Land Component Command, or CFLCC, C4). Among many other tasks, it focused on delivery to theater of critical supplies from prepositioned stocks, control of AMC personnel, and contractors going into and coming out of theater. Stocks drawn from prepositioned equipment sets included Force Provider, tactical vehicles, rations, other life support equipment, and ammunition. APS sets in both Europe and in Southwest Asia were tasked to ship needed supplies and equipment into theater.

Operation Enduring Freedom – Philippines

While the support structure began to build up in Southwest Asia, the government of the Philippines used the exercise Balikatan 02-1 to escalate the counter-terrorism training effort in the southern Philippines. The Philippine government and armed forces had battled an armed Islamic insurgency there for years. Over time, the insurgents had aligned themselves closely with Osama bin Laden and called for the establishment of a fundamentalist Islamic state in the southern Philippines.

Despite the demands of the war in Afghanistan, the Army took on the mission of training the Philippine soldiers to combat this threat. Joint military exercises began on January 15, 2002 and included 1,650 U.S. troops, including 150 Special Forces soldiers. AMC's role in supporting this portion of the campaign on terrorism was to provide support under the Logistics Civil Augmentation Program (LOGCAP) to the deployed forces. LOGCAP is an AMC administered program under which contractors provide logistics support and services to the military.

2002: Theater Preparation: Southwest Asia

Back in Kuwait, an AMC APS planning cell arrived on February 1, 2002 to augment the existing LSE staff. In addition to supporting operations in Afghanistan, adjacent countries, and the Horn of Africa, the LSE began to plan for a relocation of prepositioned stocks into Kuwait from ships and from the storage site in Qatar. GEN Kern ensured that the LSE-SWA received adequate manning to accomplish not only the day-to-day tasks associated with supporting ongoing operations, but also the projected expansion of the campaign into Iraq.

APS planners went to SWA shortly after the President's State of the Union speech in January 2002. Almost immediately AMC began to redistribute assets from Europe and Qatar into Kuwait. In support of this APS buildup, the Army greatly increased funding for repair parts, sustainment stocks, and operational project stocks, including critical water and POL (petroleum, oil, and lubricants) supply items. In July 2002, the decision was made to download equipment stored in APS 3 (Afloat) in Kuwait and prepare it for issue at Camp Arifjan, Kuwait. This equipment consisted of a 2x2 brigade set (two tank and two mechanized infantry battalions) and also 15 days of various classes of supply for a Corps. By the fall of 2002, AMC had sufficient equipment: over 17,000 separate items – staged in the Kuwaiti desert, enough to equip an entire heavy division. Additional sustainment stocks and units sets remained in Qatar, ready for immediate issue.

Despite the reality of war, in some ways, life at AMC was "business as usual." Modernization and business process initiatives, envisioned and initiated before the terror attacks, continued with hardly a pause. This was essential due to the promised savings in time and resources that modernization initiatives could deliver. Two of the major initiatives being pursued in the Army and AMC in early 2002 were implementation of the Single Stock Fund (SSF) and initiation of the Logistics Modernization Program (LMP).

Single Stock Fund (SSF)

Single stock fund is an Army initiative to tear down logistics and financial ownership barriers, eliminating redundant levels of supply within the Army. SSF consolidated the wholesale and retail elements into a single fund that is managed at the national level by AMC. A key component of this initiative is the integration of the legacy fragmented logistics automated systems into a single, streamlined logistics system. Implementing SSF was a challenge because it affected every unit in the Army. Capitalizing all Army inventories was a complex, time-consuming process with significant impacts on Army finances.

Headquarters, Department of the Army (HQDA) and AMC trained and organized a fielding and implementation team to supervise the activation of SSF. In early 2002, an implementation schedule for SSF was developed and approved that stretched into the summer of 2003. While this schedule made sense in peacetime, it also created the prospect of the Army going to war with some units operating on one supply and financial system, and other units operating on a different system. GEN Kern recognized the danger of this situation and ordered contingency plans prepared to enable an acceleration of the implementation, if necessary.

Logistics Modernization Program (LMP)

The Logistics Modernization Program is an attempt by the Army to capitalize on the dramatic improvements in business processes and technological advances that are occurring in the commercial world. The goal of the modernization is not just to enhance the current logistics process, but to replace it with a modern system that leverages commercial technological advantages. Key among these is the ability to exploit capabilities provided by the internet to provide real-time connectivity between the national provider (e.g., AMC or the "factory") and the soldier in a unit (the "foxhole"). Modernization will result in quantifiable improvements in materiel management, weapon systems management, customer service levels, and readiness. GEN Kern had observed the emergence of LMP solutions in large commercial firms, such as Dupont and Hershey Foods Corporations, and oversaw its implementation within AMC soon after he took command.

Within AMC, the LMP began as a system replacement project for two AMC depot legacy systems. Given the size and complexity of AMC's depot operations, implementing the LMP promised to be no simple task. In early 2002 an office was established in HQs AMC to begin planning LMP implementation with a planned start date of July 2003.

GEN Kern, like any other commander at any level, had to do his share of reacting to immediate requirements and crises. Unlike most commanders, however, he had unique insights into emerging Army requirements, plus a visionary ability to see solutions to challenges that others didn't realize were coming. Early in 2002, GEN Kern knew that the Army would need to expand its capabilities to support forces in Kuwait, well beyond the current structure that supported no more than one brigade at a time. He also knew that the Army industrial base, owned and managed by AMC, needed to become more efficient and productive. The solution he used for the former challenge was LOGCAP, and for the latter, LEAN production and Six-Sigma qualitative thinking and implementation.

LOGCAP Planning

Logistics Civil Augmentation Program (LOGCAP) is an AMC administered program that contracts for commercial businesses to perform combat support and combat service support tasks for deployed forces. An obvious benefit is that use of LOGCAP contractors allows more soldiers to be shifted from combat service support to combat roles. This in turn reduces the military footprint in theater, with concurrent reductions in deployment and employment timelines. Although LOGCAP is a valuable capability, its use and employment must be planned, similar to any other military capability. Despite the fact that the U.S. Army had used LOGCAP extensively to support operations in Somalia, Haiti, and the Balkans throughout the 1990s, relatively few military planners were trained or experienced in LOGCAP planning and employment.

The first LOGCAP planners deployed to SWA in September 2002. The majority of the planners joined the staffs of 3d Army at CENTCOM and LSE-SWA. A few joined U.S forces in Turkey to assist in planning for that theater. Planning for LOGCAP support in Iraq was hampered by a constantly changing force structure; a lack of access to CENTCOM staff

planners; published theater standards for LOGCAP support that were not widely distributed or understood; and planning assumptions that turned out to be extremely optimistic. A primary example of this was the planning guidance for troop strength in Iraq in the late summer of 2003: it projected a population of only 30,000 U.S. soldiers to support. Complicating all of this was the imperative to rapidly execute LOGCAP support to the expanding base camp complex in northern Kuwait, as combat units deployed in on the eve of the war. The capabilities of the LOGCAP planners the LOGCAP Support Unit (a new AMC element, composed entirely of U.S. Army Reservists, deploying to Kuwait in January 2003 for the first time in the unit's history), and the LOGCAP contractors were strained to the breaking point by the rapidly escalating demands for support as war approached.

AMC LEAN Implementation

The War on Terrorism and the preparations for expansion of the war increased the demands on the AMC Industrial Base. The industrial base consisted of maintenance depots, weapons production arsenals, and ammunition production plants. Some of these facilities dated back to the Civil War, and other facilities had production equipment that dated back to the Second World War. A combination of aging equipment and plant infrastructure, dated work rules, and rigid financial and contracting arrangements combined to make work done in the depots costly and production volume low. This contrasted poorly with comparable civilian businesses.

The Bush Administration committed early to competing government business against comparable civilian enterprises to get the best value for the taxpayer. AMC's industrial base needed to improve its cost and production performance, both to support the war efforts and to remain competitive with civilian industry. In June 2002, AMC embarked on a program to implement the Toyota Production Model, also known as "LEAN", across the entire command. LEAN thinking is a manufacturing philosophy which shortens the time between the customer order and the product build/shipment by eliminating sources of production time waste. LEAN maximizes the work effort of an organization's employees by training and empowering them to adapt to change, eliminate waste, and continuously improve.

How did GEN Kern decide to initiate LEAN within AMC? In the spring of 2002 he visited Red River Army Depot and received a briefing from 1LT Myer, a USAR officer who, in civilian life, managed a plant that produced railroad parts. He implemented some LEAN processes to the Small Emplacement Excavator (SEE) refurbishment line and proved to the Depot Commander the merits of LEAN improvements. LT Myer had convinced the depot commander to initiate LEAN only a month previously, based on the successes he had enjoyed with it back in his civilian job. GEN Kern had read numerous articles and books on LEAN, but this was his first close up look at the process and its benefits. LEAN implementation at Red River immediately identified huge areas of waste in terms of handling, item flow, parts setup, excess floor space, and other areas, and pointed the way to achieve productivity increases in terms of man-hours per vehicle and number of vehicles produced per month. Their success convinced GEN Kern that AMC needed to implement LEAN throughout the command.

GEN Kern determined to use LEAN to increase AMC's support capability and responsiveness to the war fighter, reduce lifecycle costs of U.S. Army equipment during a time of flat-lining military budgets but increasing requirements, and to position AMC to meet the enormous challenges of Army transformation and global war on terror RESET requirements. This decision was prescient because the demands on AMC's industrial base grew exponentially in 2003 and beyond.

AMC set up a steering committee to study the issue of implementing LEAN, and in June 2002, GEN Kern allocated two million dollars to contract with Simpler Consulting for AMC-wide training and mentoring on the LEAN Thinking process and to fund the initial LEAN projects at AMC's five maintenance depots, and three manufacturing arsenals. The depots and arsenals began training and building LEAN cells immediately and then initiated the first value stream mapping processes. In January 2003, GEN Kern directed the MSCs to deploy LEAN at all locations, and he began LEAN training at AMC headquarters as well.

Implementing Six-Sigma

The natural extension to LEAN implementation is Six-Sigma quality processes. Six-Sigma refers to a "standard distribution curve" broken down into its standard deviations whereby the sixth sigma from the mean equates to a chance of 1 in a million. Six Sigma attempts to control failure rates by increasing production quality. It ensures the lowest possible product failure rates while ensuring the customer's satisfaction with a product with the highest attainable quality. General Kern ensured that the implementation of LEAN was accompanied with an infusion of Six Sigma process management techniques to provide the soldiers in the field high quality products, quickly and efficiently.

The year 2002 ended with operations in Afghanistan approaching a Stability and Support Operation (SASO) and with AMC well established both in Afghanistan and in neighboring locations that supported forces in country. The chief logistical support areas outside of Afghanistan were Qatar and Uzbekistan. In these locations and also in Kuwait, AMC maintained robust LSEs that coordinated supply and maintenance support, and also managed Forward Repair Activities (FRA) emplaced well forward by AMC depots. Although Afghanistan was initially supported almost exclusively by Army military logisticians, LOGCAP began to take over the logistics support role in Afghanistan by mid to late 2002. Kuwait had become the focal point of operations in CENTCOM's area of responsibility as preparations for an invasion of Iraq intensified. 3d Army established Camp Arifjan, almost from scratch, starting in the summer of 2002; by December, it held thousands of soldiers and almost two brigades worth of equipment. GEN Kern made the decision to commit additional resources from AMC's industrial base to the theater to ensure continuity of support if war broke out.

Forward Repair Activities (FRA)

AMC initiated depot support on the Arabian Peninsula by establishing the Tobyhanna Forward Repair Activity at Camp Saliyah (Qatar) in June 2002. This activity established a forward presence of expert technicians who could either rapidly fix broken equipment (primarily communications and radar sets), or identify the problem and report it to the depot for expedited

supply or maintenance action. The success of this activity, coming after the successful deployment of LARs and other AMC augmentees to Afghanistan, became a model for expanded AMC support to the theater. In the late summer of 2002, nine Forward Repair Activity elements were approved and scheduled for deployment to Camp Arifjan, Kuwait, to support Operation Iraqi Freedom. To support aviation repair, one of the four U.S. Army National Guard's Aviation Classification Repair Activity Depot (AVCRAD) units was approved to deploy. To support tactical and wheeled vehicle repair, the Team Armor Partnership and Tank-automotive and Armaments Command (TACOM) Forward Repair Activity were planned for deployment. Six Forward Repair Activities (FRA) were planned for deployment in support of communications and electronics. They were the Electronic Sustainment Support Center, Tobyhanna Depot Forward Repair Activity, Intelligence & Electronic Warfare Regional Support Center, Mobile Subscriber Equipment Regional Support Center, Communications Security Logistics Activity, and a Software Engineering Center. It would be incorrect to call this type of support non-doctrinal, but it certainly far exceeded the peacetime planning and budgeting for AMC depot operations.

In the wake of the initial deployment of nine FRAs in Kuwait, additional ones have been established. For aviation, the Mast-Mounted Site and Theater Aviation Single Manager were created. For ground equipment, the Rapid Manufacturing System, TACOM RESET Assessment Team, Stryker FRA, High Mobility Multi-purpose Wheeled Vehicle Support Center, and Tire Service Center were established. Since the end of major combat actions, several of these FRAs have split – elements moved from Arifjan into Iraq – and they are conducting maintenance and repair operations in both countries today. In addition, a Tobyhanna FRA and Intelligence and Electronic Warfare Regional Support Center were established in Afghanistan and are conducting maintenance operations in support of Operation Enduring Freedom. AMC's civilian and military employees' contributions to theater readiness via these FRAs has been enormous; one example of critical support they've provided is the installation of over 11,000 Add-On Armor kits to High Mobility Multi-purpose Wheeled Vehicles (HMMWVs) in Iraq and Kuwait since October 2003.

Concurrent with time-critical decisions concerning support to the war effort, GEN Kern faced challenges of a long term nature that demanded his attention as well. Army Transformation continued despite the demands of the war, and AMC faced the challenge of "transforming the sustaining Army while sustaining a transforming Army." In addition to initiating and/or accelerating modernization programs such as LMP and Single Stock Fund, GEN Kern looked across the organization to make fundamental changes that would enable AMC to effectively support the needs of the force. These changes included reorganizing the AMC headquarters and Major Subordinate Commands, and initiating innovative personnel management initiatives to generate a younger and more capable work force. These innovations were difficult to execute, given the many competing demands facing AMC, but GEN Kern believed that fundamental change in a military organization is best accomplished during war. Wartime pressures and demands allowed for accelerated innovation and experimentation, in all areas, and the discovery of changes that worked allowed a more rapid move through the bureaucratic impediments to change.

Structural Changes

AMC's structural transformation resulted from GEN Kern's view that AMC could remain relevant only if it stayed in step with the drive by the Army's senior leadership to transform the Army. The first step in the transformation of the organization was to publish a new mission statement. GEN Kern revised AMC's mission statement soon after he took command. The new mission statement was "to provide superior technology, acquisition support and logistics to ensure dominant land force capability for Soldiers, the U.S. and our Allies."

Structural transformation started at the top but reached down into almost every section and corner of AMC. The AMC headquarters staff completely reorganized from its thirty year old, directorate-type staff into a G-Staff. GEN Kern directed this change to match the reorganization that occurred at Headquarters Department of the Army (HQDA), and to change the orientation of AMC from a CONUS industrial operations focus towards a support to overseas, combat operations focus. Simultaneously, AMC Major Subordinate Commands reorganized to reflect the new mission focus on supporting soldiers of a transforming Army at war. The Industrial Operations Command (IOC) changed from its focus on CONUS depot operations by shedding certain missions, acquiring others, and becoming the Operations Support Command (OSC) in January 2002. The Simulation, Training and Instrumentation Command (STRICOM) cased its colors in late 2001 and transformed into PEO-STRI as its mission moved from AMC to the Army Acquisition Executive. The Soldier Biological and Chemical Command (SBCCOM) also cased its colors, in October 2002, and in its place, raised three separate organizations: the Chemical Materiels Agency (CMA), the Research, Development, and Engineering Command (RDECOM), and the Guardian Brigade.

The CMA took on the mission of accounting for, storing, and destroying the nation's entire arsenal of chemical weapons (and also building the necessary demilitarization facilities). The RDECOM's mission was to tie together the various Army Research, Development, and Engineering Centers (previously separated by functions, e.g., aviation, automotive, and communications), and Army Research Laboratories and Activities into a single entity that focused on delivering new technologies rapidly from the lab to the soldier in the field. These reorganizations almost always resulted in a shrinking of the staffs via either elimination of layers, or of transfer of spaces to other commands. AMC's resident expertise in Chemical, Biological, Radiological, Nuclear, and Explosives response at SBCCOM led to the formation of a new organization, the Guardian Brigade, which trained and equipped itself to be the Army's premier first responder to a weapons of mass destruction (WMD) incident in the homeland. After one year as a provisional organization, the Guardian Brigade moved to U.S. Army Forces Command, incorporated additional capabilities, and activated as a new command, the 20th Support Command Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE).

AMC's major transformational shift in support of forward deployed forces occurred in January 2003. The Field Support Command, which had emerged as a part of Operations Support Command (OSC) in 2002, transitioned to the Army Field Support Command (AFSC), a forward-focused organization that spearheaded GEN Kern's efforts to link theater logistics to the nation's industrial base. In this structure, the CG, AFSC was responsible for Army Prepositioned Stocks

plus the Logistics Support Elements, the Logistics Assistance Program, and LOGCAP. Through the LSE and LAP, the AFSC was responsible for coordinating the activities of AMC elements in the theater of operations and synchronizing technical support directly to the war-fighters.

In January 2003, the AFSC consisted of three Forward LSEs, two Combat Equipment Groups, and nine Combat Equipment Battalions/Bases located in the United States and in eight overseas nations. During deployments and exercises, AFSC provided direct support to combat units deployed to the front lines, and operated logistics support elements and bases located near forward areas. All Forward Repair Activities and AMC support elements that deployed into theater were supervised and sustained in theater by the nearest LSE Commander, who in turn reported to the CG, AFSC. Forward Repair Activities were under the operational control of AFSC and its subordinate LSEs.

The final, but by no means least significant transformational change, involved the actual relocation of the AMC headquarters from its exposed position at 5001 Eisenhower Avenue in Alexandria, Virginia. The move had been discussed for many years but was not viewed with great seriousness until after September 11th. From that time on, AMC's move was planned to the greatest detail to insure continuity of operations. The first phase of the move occurred in April 2003 with the entire headquarters move to Fort Belvoir. By December 2004, Headquarters, AMC had moved into the largest modular office building complex in the world.

Transformation of the AMC Work Force

Another critical transformational program that directly supported the war effort included the "Work-force Revitalization Program." AMC is primarily a civilian organization, with almost 50,000 civilian employees and just over 1,200 soldiers assigned. Soon after taking command, GEN Kern put strong personal emphasis on implementing aggressive and proactive programs designed to attract and hire younger, high quality employees to work at AMC. The demands of the war, which included lengthy deployments of AMC depot workers, LARs, contracting specialists and almost every other specialty within AMC complicated and added impetus to the revitalization initiatives. To keep a productive work force in place both in forward locations and at home stations, GEN Kern pushed for policy changes and new hiring and pay initiatives that supported the deployment demands of an Army at war. He also conducted Town Hall meetings with employees at every opportunity to hear their views on deployment issues and personnel policies, which he then used to drive additional needed changes in the system.

2003: War, Sustainment, and Continuous Transformation

As 2003 began, the focus at Army Materiel Command remained on support to the Global War on Terrorism. The sense of urgency increased dramatically as war with Iraq loomed. Critical logistics issues emerged as deadlines for action approached. Shortages of spare parts and war reserve stocks, procurement of which had lagged far behind requirements throughout the 1990s, suddenly became elevated to crises that commanded the attention of the senior leadership of the Army and DOD. Beginning in late 2002, Department of the Army provided AMC with funds to purchase large quantities of disposable batteries and repair parts for all combat systems. Almost all of these stocks were rushed to Kuwait to support impending combat operations.

Prepositioned equipment was inspected, serviced, and issued to deploying soldiers, who inspected it again and performed additional maintenance as part of their pre-combat checks. Item managers rushed to fill equipment and supply shortages identified by deploying units. LOGCAP contractors expanded their presence in theater to support deploying forces and to prepare for support operations in liberated Iraq. AMC personnel specialists grappled with the challenge of deploying additional Logistics Support Elements and augmenting personnel while maintaining support to Afghanistan and all other theaters.

GEN Kern was directly involved in every one of these decisions. In addition to directing actions with AMC, he met repeatedly with senior Army, Department of Defense, and Allied officials to identify critical issues and recommend priorities in a crisis action environment. As an example, GEN Kern personally intervened with the Department of Defense, at the request of the Polish Minister of Defense, to assign deployment experts to Poland to assist the Poles in their deployment to Iraq. He also teamed with the Army's Vice Chief of Staff, GEN John Keane, to secure the approval from the Secretary of Defense for funds to purchase additional disposable batteries. His role as Commander allowed him to combine extensive travel to all theaters with intensive schedules of briefings and meetings at home to give him situational awareness and access to the Nation's key decision makers. GEN Kern's visits to the Pacific, European, and Southwest Asian theaters throughout his tour of command kept him in touch with both leaders in theater and the deployed AMC work force: military, civilian, and contractor. The influence of what he saw and how that impacted his decision making process can be glimpsed by reading the summarized trip reports (see Appendix A).

Terrorism Strikes AMC

In May 2003, the war on terrorism became personal again for AMC as Saudi Arabian terrorists attacked the Vinnell Corporation housing compound in Riyadh. Vinnell is the primary contractor employed by the Office of the Program Manager, Saudi Arabian National Guard (OPM-SANG), and scores of its employees were killed or wounded in the attack. The Office of the Program Manager is the principal U.S. military advisor to the Crown Prince, and is a member of the U.S. Ambassador's country team. With security deteriorating in the Kingdom of Saudi Arabia and its housing compound shattered, Vinnell faced the prospect of having to discontinue operations. OPM-SANG stepped in and provided temporary quarters for Vinnell employees. Simultaneously, 3d Army (ARCENT) and AMC substantially increased the force protective posture in the area. These measures allowed the OPM-SANG and Vinnell missions to continue operations. Vinnell would not be able to move to a sufficiently secure facility until early in 2004.

Army Materiel Command, 2003 – The Home Front

The summer of 2003 saw continued efforts within AMC to implement GEN Kern's vision of transformation, while support to the war effort continued to dominate all actions within the command. The threat from the enemy's use of Improvised Explosive Devices (IEDs) generated the rapid development, testing, and production of Add-On Armor kits for HMMWVs. These kits were developed by AMC's Army Research Lab, refined at Tank-automotive and Armaments Command's Research, Development and Engineering Center (TARDEC), and produced by six different AMC depots and arsenals. The Communications and Electronics

Command (CECOM) labs produced electronic countermeasures to IEDs, while the Aviation and Missile Command's facilities (AMCOM) worked on Rocket Propelled Grenade (RPG) countermeasures. All of AMC's supply managers strove to fill theater shortages in repair parts and other critical commodities, especially track. Demand for the latter resulted in Red River Army Depot expanding their Bradley track refurbishment activity to a 24/7 operation, and to contracts that tripled new track production.

Training of employees in LEAN and Six Sigma implementation continued and expanded within AMC's commodity commands, and in the depots and arsenals. In July, Tobyhanna Army Depot and CECOM replaced their legacy computer management software (the Standard Depot System (SDS), and the Commodity Command Standard System (CCSS), with business enterprise integration software made by the firm SAP. This software fielding marked the first step in AMC's effort to transform the Army's industrial base management processes from a 1970s-era methodology to a modern, customer-needs focused approach. This software, as a part of the Logistics Modernization Program, would eventually be fielded to all AMC logistics activities after its trial run and stabilization at CECOM and Tobyhanna. Other actions included AMC staff participation in the intense briefing efforts associated with bringing the new Army Chief of Staff, GEN Peter Schoomaker, into his new post; integrating into AMC a new Commanding General of the United States Army Security Assistance Command (USASAC), as well as a new G3; and assigning a new Commanding General (CG) to OPM-SANG. That office faced an immediate crisis in moving Vinnell employees into secure housing. This required intense personal leadership from three General Officers (AMC, USASAC, and OPM-SANG) to resolve.

2004 – Coupling Lessons Learned With Transformation

GEN Kern's major challenges in 2004 centered on support to the war effort and ensuring by force of his will as the Commander that certain transformational efforts "take root" with AMC and the Army. In the former category, GEN Kern and his subordinate commanders grappled with balancing heavy demands from the theater with an uneven funding stream; this lack of consistent, steady funding created many difficulties with scheduling both internal and contracted production. In the latter category, an unexpectedly difficult implementation of LMP at the first site led to some calls to scrap the program. The functionality of the LMP solution made it one of the most comprehensive, robust, and therefore, complex implementations of a Commercial Off the Shelf (COTS) Software solution. As a result, the execution of the original program strategy became problematic because the Government and contractor both underestimated the complexity of implementing a COTS software solution of this magnitude in the DoD environment. This complexity manifested itself in the areas of software maturity, requirements determination, interface design, data quality, and organizational change. GEN Kern understood these complexities and strenuously resisted abandoning the program, and instead involved himself personally in the effort. GEN Kern spent time visiting with the prime contractor weekly and with the German software designers at their headquarters in Europe. His personal intervention in both of these areas ensured that critical production and transformation initiatives remained on track.

The May 2003 conclusion of major offensive operations, followed by the unexpectedly determined enemy insurgency in Iraq, led to an intense period of collecting "lessons learned" for review and possible corrective actions. GEN Kern assisted the Army G4, Lieutenant General (LTG) Claude Christianson, as he reacted to real and perceived logistics failures by identifying four "logistics focus areas" in need of immediate corrective action (see Appendix C). In an attempt to correct deficiencies in strategic, operational, and tactical distribution of supplies and equipment, the Secretary of Defense named the Commander of the U.S. Transportation Command (USTRANSCOM) as the Distribution Process Owner (DPO) in late 2003. In early 2004 GEN John Handy, CG of USTRANSCOM, established the CENTCOM Deployment and Distribution Operations Center (C-DDOC) in Camp Arifjan to correct distribution deficiencies. This action had GEN Kern's full support; in fact, he accompanied GEN Handy to the Pentagon to brief the concept and secure the Secretary of Defense's approval for implementation. (For a detailed discussion of the C-DDOC, see Appendix D).

Establishing the C-DDOC supported GEN Kern's goal of achieving needed transformation in the joint logistics area. GEN Kern advocated fairly radical reform in this area, to include establishing a Joint Logistics Command as well as Theater Joint Support Commands. GEN Kern saw all of these initiatives as necessary to maximize logistics efficiency in theater while simultaneously ensuring that scarce logistics resources were employed to best support the Combatant Commanders' needs. However, it soon became apparent that only the Army supported the idea of regional Joint Logistics Commands, and DOD put off discussion of a National Joint Logistics Command for the foreseeable future. Against this opposition, GEN Kern, LTG Christianson, GEN Handy, and Vice Admiral Keith Lippert (Director, Defense Logistics Agency) decided to concentrate on establishing workable joint logistics processes in theater, as a precursor to establishing Joint Logistics organizations. GEN Kern cultivated close personal relationships with the senior logisticians at organizations such as TRANSCOM, DLA, and the Air Force Materiel Command to ensure that transformational processes were vetted with the staffs there, and to achieve senior leader "buy in." His success in this area was no accident, but a result of conscious decisions to focus on establishing close working relationships, rather than rivalries, with his peers from other services.

As 2004 began, AMC, like the rest of the Army, found itself stretched in supporting the war, executing the RESET of all Operation Iraqi Freedom (OIF) forces, while implementing a wide variety of transformational initiatives. Chief among these was the Logistics Modernization Program. As the decision point for expanding implementation of LMP to other commands within AMC neared, internal reviews revealed that the program simply wasn't stable enough to support wider implementation – especially to organizations supporting an Army at war. GEN Kern convened several sessions with the leaders of the corporations contracted to implement this system, which eventually resulted in significantly greater investments by these companies in the implementation and correction of the program. AMC decided to delay wider implementation of the LMP initiative for an indefinite period until certain measured areas of performance could be attained by the system.

The most important programs within AMC continued to be those that directly supported the needs of soldiers in the combat zones. Production of Add-On Armor kits for HMMWVs climbed rapidly in 2004, and the teams of AMC depot employees installing them expanded to

cover eight separate locations in Kuwait and Iraq. The Research, Development, and Engineering Command connected its research laboratories directly to soldiers in the field by deploying FAST teams (Field Assistance in Science and Technology) forward to collect lessons learned on enemy tactics and soldiers' reactions to new technology. The labs used this information to tailor new products to the soldiers' needs. AMC depots, in addition to producing Add-On Armor kits, continued to work 24/7 to produce track and to repair and refurbish (also known as RESET) equipment recently returned from the desert. AMC LSEs in theater labored hard to expand Forward Repair Activity capabilities and to support the massive changeover of units from OIF 1 to OIF 2 and OEF 4 to OEF 5. AMC item managers worked around the clock to acquire, track, and deliver critically needed spare parts to the theater to support the deployed forces' combat readiness. GEN Kern continued to stress the importance of distribution management, as opposed to supply or transportation management, to AMC leaders and also to Service and Joint leaders with whom he worked to push needed fixes to the system. As always, GEN Kern made many trips and visits to a wide variety of locations: academic, industrial, and military – to search for issues and the solutions to the challenges the Army faced in 2004.

RESET – Setting the Force, Post Operation Iraqi Freedom (Reconstitution/RESET)

FM 100-9 defines reconstitution as "extraordinary actions taken by commanders to restore combat, combat support, and combat service support units to a desired level of combat capability commensurate with mission requirements and availability of resources." OSD uses the term "Setting the Force" or "RESET" instead of reconstitution to describe the effort underway to return forces to full combat capability upon conclusion of their tour in the combat zone. The Army further defines "setting the force" to include, among other things, incorporating lessons from OIF/OEF into unit training; resourcing units; repair/overhaul of equipment; prioritization of facilities and personnel; establishing force rotations for on-going operations; and reestablishing and restructuring APS.

The Army's major objectives for RESET are to: continue support to the combatant commanders; return forces to pre-hostility readiness levels; and to integrate RESET into continued transformation, modernization, and recapitalization. The standards set for the equipment RESET program are: bring all equipment to 10/20 standards; where sensible, upgrade capability implementing OIF lessons learned; replace obsolete equipment in APS; and reconfigure APS to be more strategically relevant and responsive. Equipment RESET is executed in unit motor pools, in organic unit support maintenance shops, at installation maintenance activities, and in AMC Depots. AMC and installations both contract for commercial firms to provide augmentation to existing capabilities to meet the demands of the war effort. RESET begins before units begin their redeployment from the theater of operations, as unit and AMC inspectors classify equipment and identify candidate vehicles and aircraft for immediate shipment to depots for work exceeding unit and installation capabilities. The goal is for all returning active duty units to reestablish their combat readiness within six to eight months after their return to home station.

The RESET concept for Army Prepositioned equipment requires the Army to reconfigure existing sets and create three Army Regional Flotillas(ARFs), which provide for global coverage. The Army will maintain APS in Europe, SWA, and North East Asia (Korea and Japan) and

create ARFs in the Mediterranean Sea, Indian Ocean, and the Pacific Ocean. APS stocks will be reconfigured from existing assets, procurement and the redirection or cascading of equipment. ARF stocks will be created in the same manner and be augmented with ammunition, combat service support, sustainment, and humanitarian assistance/disaster relief capabilities. Each APS/ARF will have sufficient combat power to meet the immediate threat and sufficient materials to assist in rendering relief in other contingency situations.

The current timeline for reconfiguring the APS and establishing the ARFs runs through September 2006. Current demands for equipment in Iraq and Afghanistan are forcing AMC to delay reconstitution of APS stocks. As has been the case since the beginning of the War on Terrorism, GEN Kern and the entire AMC chain of command have shown tremendous flexibility in adjusting logistics plans to accommodate combatant commanders' requirements. Equipment from APS stocks has been used to replace combat losses, and to provide augmentation to unit authorizations as missions have changed. AMC units normally charged with storing and performing limited maintenance on prepositioned equipment have shifted smoothly into new missions such as receiving and issuing new equipment, installing upgrades such as armor kits and command and control upgrades, and performing depot maintenance at forward locations.

As GEN Kern grappled with the challenges of executing RESET and implementing Transformation within AMC, he realized that he needed more direct contact with key Army commanders to synchronize efforts and confirm expectations. This became apparent early in 2004 as U.S. Army Forces Command (FORSCOM) began to question AMC policies on both supply stockage and depot RESET priorities; AMC managers had questions of their own about FORSCOM decisions on RESET. GEN Kern contacted the CG FORSCOM, GEN Larry Ellis, and proposed a face to face meeting, on a recurring basis, as a way to synchronize efforts between the commands. GEN Kern took key AMC commanders and staff to HQs FORSCOM in early 2004, and subsequently hosted GEN Dan McNeil (GEN Ellis' successor) and the FORSCOM staff at HQ, AMC in June. These meetings were extremely beneficial in clearing the air, correcting misconceptions each command held about the other's role in RESET, and forming a united front for addressing resourcing issues with the Army Staff.

GEN Kern followed these conferences by establishing similar meetings with the U.S. Army Training and Doctrine Command (TRADOC). GEN Kevin Byrnes, CG of TRADOC, and his staff spearhead many of the Army's doctrinal initiatives to transform the Army. AMC's RDECOM similarly led the Army's research and development efforts, in both Army research laboratories and in affiliated university research centers. AMC's G3 Operations section played a key role with the U.S. Army Combined Arms Support Command (CASCOM) in combat service support unit redesign efforts. GEN Kern and GEN Byrnes envisioned a close partnership between TRADOC's Futures Center, RDECOM's System of Systems Integration (SOSI) office, and the AMC G3 Futures cell. The quarterly meetings GEN Kern established between the headquarters of TRADOC and AMC, which he co-chaired with GEN Byrnes, established and cemented this partnership.

The complexity of the RESET mission demanded intense personal involvement by GEN Kern to ensure that critical production and resourcing decisions supported Commanders' priorities. He ensured that by visiting the Commanders, Staff, and soldiers of three OIF 1

divisions executing RESET and modular transformation concurrently. GEN Kern's visits and discussions with the 3d Infantry, 101st Airborne, and 4th Infantry Divisions revealed challenges and issues at unit level that were not being adequately addressed. By virtue of his position, GEN Kern was able to carry the Division Commanders' concerns directly to the FORSCOM, AMC, and Army Staffs. His previous efforts to build better communications among all of these staffs enabled better responsiveness and support from these elements that comprise the Army's sustaining base. GEN Kern's efforts at personal contact and emphasis on improving staff coordination at the highest echelons of the Army have been critical to keeping the RESET of the force on schedule.

Conclusion

What will history say about this time in our Army? Did Army logisticians meet the challenges? Is the Army changing in the right ways to meet future threats? American soldiers have always overcome the logistics challenges they have faced from Valley Forge to Vietnam. Stories of soldiers in Grenada using their personal phone cards to "call in" air support, and of soldiers in Germany using captured gasoline to continue the attack, demonstrate the adaptability of the American Soldier. American soldiers will continue to do whatever is necessary to ensure their success on the battlefield. But we owe them our best efforts to minimize their need to improvise, and a few issues still remain critical to the Army logistical system as we progress into the 21st Century.

AMC now faces the requirement to maintain LSEs almost indefinitely in theater, which restricts the ability to deploy additional LSEs due to a finite quantity of MMCS sets, and a finite number of LARs. The LAP office, in conjunction with AMC's subordinate commands, has worked hard to establish tour policies for LSE personnel that will support an indefinite campaign. Having a sufficient number of trained LARs and LAOs on hand, who can rotate in and out of theater on a scheduled basis, while the LSE remains operational, is a new operating paradigm for AMC that is still evolving as the Global War on Terrorism unfolds.

We must continue to modernize our defense industrial base, to include our depots, arsenals and warehouses. We must continue to strive for complete asset visibility, throughout the entire laboratory to foxhole pipeline. Small arms manufacturing capability (weapons and ammunition) is a critical component of our readiness that is overshadowed by the "big ticket" items of the budget. Communications, both voice and data, must be apportioned sufficiently and reliably enough to meet the needs of logisticians, so that they can provide responsive and proactive support. Finally, we must work toward joint and expeditionary logistics processes and organizations which will maximize the capabilities of our forces while minimizing redundancy in logistics and additional requirements to forward deployed forces.

Although people argue that a weapons system or single process may hold the key to the future of our Army, advancement and change is ultimately a function of changing people's minds and actions. Ultimately success in logistics can only be brought about by enlightened leadership focused on supporting our number one customer: the servicemen and women of the Armed Forces. The key to this leadership is rational and appropriate decision-making at all levels. The evolution of AMC over the past four years is indicative of the direction the logistics

community must take to transform. However, the job is not done until the Army, and AMC, can meet the needs of the nation effectively, efficiently, and reliably.

Appendices

Appendix A
Summarized Trip Reports
2001-2004

Visit to the Pacific Theater – 31 March - 6 April 2002 (see Annex 1 to Appendix A)

Maintaining visibility and contact with both the unit's personnel and the supported customers is a requirement for a Commander at any level. Due to AMC's mission, the first five months of GEN Kern's tenure in the job kept him busy dealing with issues at HQs AMC and in visiting several of the many AMC sites. His first trip outside the continental United States was to the Pacific Theater. During this trip he visited Korea, Japan and Hawaii. Although the Pacific Command was not directly supporting operations in SWA, GWOT operations in the Philippines and the never-ending threat from North Korea continued to require an emphasis on readiness for Army forces in the Pacific.

Visit to Europe – (Germany, Luxembourg, Hungary, Kosovo, France and Italy) – 11-19 June 2002 (see Annex 2 to Appendix A)

GEN Kern's next trip overseas took him to U.S. military and diplomatic activities in Europe. During the trip, he visited the major logistical activities of the U.S. Army Europe, Army Materiel Command - Europe activities, the NATO Maintenance and Supply Agency in Luxembourg, the Logistics Support Element and the Multinational Brigade (East) in Kosovo, the Eurosatory Armaments Conference in Paris, France, the Embassies in both France and Hungary, and finally Army Prepositioned Stocks in Livorno, Italy.

Visit to Southwest Asia (Saudi Arabia, Qatar, Kuwait, and Afghanistan) and Europe (Italy and England) – 20–27 September 2002 (see Annex 3 to Appendix A)

As planning and preparations for Operation Iraqi Freedom intensified, GEN Kern traveled to Southwest Asia to examine ongoing actions and identify emerging issues and priorities. He was accompanied on the trip by the Honorable Raymond F. Dubois, the Deputy Under Secretary for Defense (Installations and Environment). The trip provided Mr. Dubois valuable information on installation issues and his perspectives, and insights contributed greatly to the success of the trip.

Visit to Pacific AOR (Hawaii, Korea, and Alaska) – 23-28 March 2003 (see Annex 4 to Appendix A)

Although the war with Iraq began on March 19th, support to the rest of the Army continued unabated. In recognition of this, GEN Kern returned to the Pacific Command area of responsibility during the height of the ground offensive into Iraq. During his visit to the Pacific, General Kern stressed several issues at each of the locations. First, he solicited input and assistance from field commanders on the configuration of the Army Field Support Command (AFSC) and the Theater Support Commands (TSC). Second, he stressed the importance of re-evaluating how we reconstitute our Army Prepositioned Sets (APS) after Operation Iraqi Freedom to support Army Transformation. Finally, General Kern identified as his biggest challenge the recruiting of new workers into the AMC work force to replace the many professionals who have or soon will be retiring. He sought the support of leaders in the Pacific to attract qualified employees to support his transformation of the AMC work force. A wide variety of issues were brought to GEN Kern by the PACOM chain of command for his information and action.

Visit to Southwest Asia, Poland, and Germany – 20-27 June 2003 (see Annex 5 to Appendix A)

From 20-27 June 2003, General Kern visited key sites and leaders in Kuwait, Poland and Germany. Trip objectives included: discuss APS RESET and tour APS facilities; tour support facilities in Kuwait; and discuss RESET and associated support issues. In Poland GEN Kern met with Senior Polish leaders to discuss Lessons Learned from OIF and U.S. support for the Polish Multi-National Division in Iraq. While in Germany, GEN Kern discussed logistics issues and support for OIF with the USAREUR CG and G4.

Visit to Southwest Asia Trip – 22-30 September 2003 (see Annex 6 to Appendix A)

GEN Kern returned to Southwest Asia in late September, accompanied by MG Thompson, CG TACOM, and MG McManus, CG AFSC. In addition to checking on progress in the theater logistics effort, GEN Kern's priorities included implementing fixes to theater distribution challenges, especially in the area of retrograde of repairable materiel. He also wanted to visit combatant commanders and hear, first hand, their logistics issues and concerns. He also carried a prototype armored door for application to HMMWVs, along with test results and video footage of the door's ability to withstand RPG hits. He wanted to personally brief the CG, CJTF-7 on the door and seek his concurrence on rapid production and fielding of this interim fix to the threat from IEDs.

Visit to Pacific Command (PACOM) and Korea – 12-21 February 2004 (see Annex 7 to Appendix A)

This trip was notable for the ease in identifying the tremendous progress the theater has made in numerous areas since GEN Kern took command of AMC. Theater commanders, both Army and Joint, expressed great confidence in their ability to support operations in SWA and to carry out their wartime missions.

Visit to Southwest Asia (Kuwait & Iraq) and Germany – 6-10 March 2004 (see Annex 8 to Appendix A)

GEN Kern followed his visit to the Pacific with a quick trip to Kuwait, Iraq, and Europe. This visit came as the massive rotation of forces between the OIF 1 units and their replacement OIF 2 units was hitting its peak. In addition to replacing the OIF 1 force, the Theater was dealing with the logistics challenges of integrating a large U.S. Marine Corps Ground Combat force into the theater, and also equipping Iraqi Army and Civil Defense units. Everyone in theater displayed tremendous energy and dedication to the wide variety of tasks that face a nation at war. Progress was self-evident in Iraq and Kuwait. Our forces in Germany were equally engaged in supporting deployment, redeployment, and logistics operations in the Central Command (CENTCOM) area. GEN Kern included a visit to the headquarters of the German conglomerate SAP to enlist their support and cooperation in overcoming the challenges AMC faced in implementing the Logistics Modernization Program (LMP).

Visit to Southwest Asia (Kuwait, Qatar, Afghanistan, & Iraq) and Germany – 6-15 August 2004 (see Annex 9 to Appendix A)

GEN Kern's major mission on this trip was to brief key leaders in theater on the results of the Abu Ghraib prison investigation. On 16 June 2004, GEN Kern was placed in charge of the investigation. He also visited key leaders and logistics activities at every site, to include the CG of the 25th Infantry Division in Afghanistan, and the CG of the 1st Infantry Division in Iraq. In Germany he visited RESET activities and received theater briefings on challenges USAREUR faced in executing their RESET and support missions.

(Annex 1 to Appendix A)
Visit to the Pacific Theater – 31 March - 6 April 2002

Maintaining visibility and contact with both the unit's personnel and the supported customers is a requirement for a Commander at any level. Due to the breadth of AMC, the first five months of GEN Kern's tenure in the job kept him busy dealing with issues at HQs AMC and in visiting several of the many AMC sites. His first trip outside the continental United States was to the Pacific Theater. During this trip he visited Korea, Japan and Hawaii. Although the Pacific Command was not directly supporting operations in SWA, GWOT operations in the Philippines and the never-ending threat from North Korea continued to require an emphasis on readiness for Army forces in the Pacific.

Korea

HQs, U.S. Forces Korea & Combined Forces Command

With the threat from North Korea always imminent, the Combined Forces Command leadership focused on three areas readiness concerns. The first concerned the Army Prepositioned Set (4) in Korea. Naturally the CFC Commander wanted to know when the new equipment authorizations would be filled. He also asked for assistance in determining by class of supply what would be needed in the first 30 days of a war to support this expanded force. His next concern focused on depot maintenance of equipment on hand in Korea. U.S. Forces Korea requested that the National Maintenance Program (NMP) recognize the need for maintenance of aviation systems forward in Korea. This request had to be balanced against a legal requirement to fully workload AMC's CONUS depots before work could be given to overseas contractors. They requested assistance with demilitarization of obsolete stocks, either in Korea or in CONUS.

2d Infantry Division

The visit to the 2D Infantry Division revealed that 2ID was generally pleased with the support provided by AMC. They had specific questions on how HQDA funded a vehicle depot refurbishment program called VRIP (Vehicle Readiness Improvement Program) that affected their M9 ACE, AVLB, and M88 fleets. They had other questions on specific parameters within the Standard Army Retail Supply System (SARSS) which caused certain otherwise valid requisitions to be cancelled. A question GEN Kern took away from his visit to the division concerned why contractor supported/supplied items are sometimes "stovepiped" and therefore demands are not captured in standard Army logistics systems.

Materiel Support Center – Korea (MSC-K)

The MSC-K, a large industrial and storage facility located in the center of South Korea, stated that they had data to prove they are the best at repairing Bradley transmissions. Their aim was to be funded by the National Maintenance Program to repair transmissions in Korea, rather than send them back to CONUS for repair. They also requested the authority to inspect and code out unserviceable track, so that they could avoid shipping non-repairable track to Red River Army Depot. This request made sense because shipping track from Korea to CONUS is costly, and they had identified a market in Korea for reclaimed steel. This request had to be balanced against the requirement to keep the track repair activity at Red River Depot operating with an adequate supply of unserviceable track. GEN Kern requested to be on the net the next time Korea directed the release to units of stocks that are supposed to be maintained in war reserve. The question of authority to release, and what an item manager "sees" that caused him/her to believe that 50% of stocks are releasable, required exploration.

19th Theater Support Command (TSC)

The 19th TSC's focus at this time, in addition to normal readiness and war planning concerns, was Single Stock Fund implementation. As they were one of the first units scheduled to implement, they had worked this issue hard in the weeks and months preceding GEN Kern's visit. They believed that they were on track for Single Stock Fund (SSF) Milestone 3 (final implementation). They voiced their concern about contractor supported items and lack of visibility through normal supply channels. They and the rest of the Army needed to know what clause is needed to put into contracts to provide STAMIS (Standard Army Management Information System) compatibility to contractor logistics support (CLS).

Japan

35th S&S Battalion

The 35th Supply & Service Battalion operates a theater storage activity, intended primarily for War Reserve Materiel needed for a conflict in Korea. They identified a concern over the shelf life for chemical suits. Suits were expiring on the shelf – with proper inventory management, we should have seen this coming and avoided wasting the suits. As suits age we could turn near-expired suits over to first responders. This is one example of why the LMP could benefit the total Army.

Hawaii

25th Infantry Division

The 25th Division requested authority under the NMP to have various rebuild programs. GEN Kern promised to send a team from TACOM to assess and determine the smart places to do rebuild. They also identified a serious corrosion problem affecting vehicles, weapons, and electronics equipment. The Division requested a depot-level Electronics Repair Shelter to help them fight the corrosion battle. What was lacking was solid evidence to support this request:

data collection, statistical evidence, and a baseline against which to measure the data. GEN Kern requested that Stewart and Stevenson, manufacturers of the Family of Medium Tactical Vehicles (FMTVs), take a look at the corrosion problems in Hawaii. The Division also identified an issue with use of a certain lubricant (not suitable for tropical use) and GEN Kern tasked the research lab at TACOM to look into this.

The Division also identified breakage of the troop seats on the FMTVs as a major readiness issue. The FMTV Project Manager has a pile of complaints on this subject. A final readiness issue concerned the Small Emplacement Excavator (the SEE) - units were having a lot of problems with seals for front and rear axles.

GEN Kern asked all AMC Major Subordinate Commands, and also the Operational Support Command, to explain why we were deploying the LARs associated with 25ID and leaving the Division uncovered? A related issue surfaced over the LAR's inability to hire a replacement against a temporary vacancy caused by deployment. Overhire authority for LARs was needed. This issue, first brought to light by our missions in support of OEF, would be exacerbated by the demands of OIF.

United States Army Pacific Command (USARPAC)

The CG of USARPAC identified an issue that would become a major challenge for the Army in 2003: contractors on the battlefield, accounting for them, and keeping track of readiness of contractor supported equipment. This was discussed in the context of what was then called the Interim Brigade Combat Team (IBCT), later to become the Stryker Brigade Combat Team. Other issues raised included demilitarizing excess and obsolete ammunition stored in Japan, and assistance from AMC in long term planning for ammunition stockage and Foreign Military Sales (FMS) in the Pacific

United States Pacific Command (PACOM)

Discussions with the Commanding Officer of PACOM included strategic questions on those nations collectively known as "The 'Stans," as well as Japan, India, and Singapore. Funding for current operations, and the impacts combat operations were having on USARPAC and the 25ID, were also a matter of concern.

The final site visited on this Pacific trip was the Central Identification Laboratory – Hawaii (CILHI). CILHI continues to conduct search and recovery missions across the Pacific, often in extremely remote and inhospitable terrain. GEN Kern inquired if there was any equipment they were lacking. CILHI's unique mission allows for them to potentially serve as a test bed for new equipment. CILHI indicated that they could use AMC's mine/countermine technology to improve the safety of their teams. GEN Kern tasked AMC MSCs to establish direct linkage between CILHI and the labs to enable rapid insertion of needed technology to the field.

(Annex 2 to Appendix A)
Visit to Europe – (Germany, Luxembourg, Hungary, Kosovo, France, and Italy) – 11-19 June 2002

GEN Kern's next trip overseas took him to U.S. military and diplomatic activities in Europe. During the trip, he visited: major logistical activities of U.S. Army Europe; Army Materiel Command - Europe activities; the NATO Maintenance and Supply Agency in Luxembourg; the Logistics Support Element and the Multinational Brigade (East) in Kosovo; the Eurosatory Armaments Conference in Paris, France; the Embassies in both France and Hungary; and finally Army Prepositioned Stocks in Livorno, Italy.

Germany

Defense Liaison Office Briefing

GEN Kern's initial visit was to the Defense Liaison Office in Bonn. This office was established after the embassy moved to Berlin. Despite the German government move to Berlin, over 90 percent of the defense activities remain in the Bonn and Cologne areas. GEN Kern stressed changing from a Cold War perspective and to begin understanding Eastern Europe. The new Defense Planning Guidance would guide our direction in this area, and he emphasized the need to look at classified information networks into Eastern Europe and information sharing between organizations. A point of interest was Germany's impending reorganization of its military into five major departments: Army, Navy, Air Force, Joint Logistics, and Joint Medical.

U.S. Army Research and Development Standardization Group (USARDSG)

This office's purpose is to develop and maintain access to foreign research efforts. GEN Kern stressed the importance of commercial as well as government research efforts and directed the office to specifically look at biotechnology, information technology, and the German patent process.

United Stated Army Europe (USAREUR)

USAREUR emphasized the changes in the theater since the Cold War. Contingency capabilities and support to Central Command (CENTCOM) for Enduring Freedom were discussed. The development of land lines of communications into Eastern Europe to support operations in the Balkans has been a major development over the past few years. Medical support at Landstuhl and Mortuary Affairs support from the 21st Theater Support Command (TSC) provide important theater capabilities. The CG, USAREUR emphasized the need to review the Army's pre-positioning strategy, and asked why in-transit visibility procedures were not standard across DOD? Other issues he raised included declining resource flexibility in Europe due to implementation of Single Stock Fund; use of "best practices" in the National Maintenance Program; establishing Army logistics bases in Eastern Europe; disposition of excess materiel through Foreign Military Sales; possible AMC command of the Theater Support

Commands; integration of contractors into the logistics and force structure; perceived disconnects between the logistical and financial systems; a concern with stating the Army's lift requirements in terms of the C-130; ARFOR command and control issues; and the Warfighter Information Network – Tactical (WIN-T).

AMC - Europe Briefing

There were over 2,700 AMC personnel in Europe, including contractors. A concern over the testing of Patriot missiles was raised - a program is needed to test missiles that have been on launchers, as these have had more maintenance problems than those left in storage. A discussion was conducted reference engine overhauls for the AGT 1500 (M1 Tank) engine. Possible places for AGT 1500 overhaul included Kansas, Anniston, and Reichweiler, Germany. GEN Kern directed an assessment of these locations as part of a comprehensive National Maintenance Program.

Field Assistance in Science and Technology (FAST) Briefing

At this meeting with the FAST advisor for USAREUR, Gen Kern asked "How can we teach scientists about the Army?" The suggestion was made to assign them for a six month tour at a FAST and six months at a depot. He directed the USAREUR FAST to follow-up on the Canadian Bio-Detection system. The next topic concerned the rapid movement of technology from the laboratory to the field. GEN Kern requested that the FAST contact him directly if they have a good idea or initiative that is being ignored. He also told the FAST to look at the Navy's Quick Reaction Program and consider as part of Research, Development, and Engineering Command process (a proposed new command within AMC). This proposed new command's mission will be to provide a quicker method to move technology from the laboratories to the field. The two big issues with rapid movement of programs from research and development to the field have been safety and a funding stream for life cycle support after fielding. This visit highlights GEN Kern's desire to make the FAST teams' work more visible so that others can leverage their good ideas and efforts.

21st Theater Support Command

During this visit topics discussed included: Forward stockage of War Reserve materiel vs. storage in CONUS; logistical support by the 21st to the 173d Airborne Brigade in Italy; 21st TSC's HEMTT rebuild program's costs vs. a similar program at Red River Depot; a deployable C2 capability for the 21st and it's theater MMC; cheap, lightweight parachutes to support humanitarian airdrops; and the Immediate Reaction Force (IRF) USAREUR the 21st maintain at Rhine Ordnance Barracks, near Ramstein Air Base.

NATO Maintenance & Supply Agency (NAMSA)

NAMSA is a no profit and no loss organization that could potentially provide a great deal of logistical support to AMC and the Army. It has weapon systems agreements with over 20 nations. Its maintenance and supply organizations are ISO 9001 – 2001 certified, i.e., they met NMP requirements. NAMSA obtains parts through Original Equipment Manufacturers (OEMs)

and the Defense Logistics Agency (DLA). NAMSA was beginning to develop visibility of national inventories within NATO, and they were also developing a web-based system for visibility and requisitioning. GEN Kern asked if anyone has asked NAMSA about supporting CENTCOM (at that point, the answer was no). The potential existed, however, as Raytheon supported TOW in Europe via NAMSA.

Kosovo

A quick visit to Kosovo allowed GEN Kern the opportunity to speak to the American Commander of the Kosovo Force (KFOR) and also to personnel who staffed the AMC Logistic Support Element – Kosovo. In addition to the LAO and the LARs, Field Service Representatives (FSRs) from the various companies participated in the discussion. They reported that the American contingent in Kosovo was using Blue Force Tracking (BFT) very effectively. The command post at Camp Bondsteel displayed a current operations display that gave the commander, and also the soldiers in the field, awareness of the location of every U.S. patrol in the province. Having previously commanded the 4th Infantry Division, which tested and embedded the Force XXI Battle Command – Brigade and Below (FBCB2) system, GEN Kern was very familiar with the capabilities a system such as BFT provided to a combatant commander. At this time, however, a plan to field this capability to other U.S. units did not exist.

Hungary

The Hungarians expressed a desire to be active in Europe and they want to develop niche capabilities as a member of NATO. They were pursuing development of capabilities in the chemical biological area. They expressed their support to the U.S. after 9-11 but they are not in a position to provide capability or financial support.

France

Eurosatory

Eurosatory is an annual arms show attended by almost every nation in Europe and many others as well. GEN Kern stressed the need for good cooperation between the United States and France. He discussed the MLRS program as a good model for mutual cooperation. He recommended that the French make a stronger effort to support U.S. systems at the component versus the major systems level at this time. The French also indicated interest in the FCS program and GEN Kern provided them contact information through the Lead Systems Integrator. He also directed that AMC's Research & Development Centers get more involved with the French, especially in the area of biotechnology.

U.S. Army Research & Development Standardization Group - France

GEN Kern questioned how this organization identifies commercial sources of technology for further investigation. Their response was that they checked publications, established points of contact, and attended trade shows/events. He directed that AMC begin Quarterly Reviews on USARDSG efforts. Reviews would include the STAN Groups, RDECs, Labs, PEOs, and PMs.

GEN Kern also stated that we should try and link USARDSG efforts with MIT's Nanotechnology efforts.

Italy

Livorno, Italy is home to an AMC Combat Equipment Battalion, with an equipment storage mission. They share the installation with a USAF ammunition storage squadron. These organizations have been providing support to Enduring Freedom. They have a 24.3 day Customer Wait Time for supplies and repair parts from the parent organization in Holland. They have some corrosion problems because of the sea air along the coast. The Temporary humidity controlled shelters recently provided by AMC have helped but they have very limited life expectancy (less than 5 years). They do get some support from NAMSA. Facilities are very limited; they were built in the early 1950s with little investment since. Maintenance bays provide inadequate space for modern equipment and they have very limited overhead lift. They reported that they have 570 pieces of excess rolling stock.

Both GEN Kern and the CG, U.S. Army Security Assistance Command (USASAC) identified this equipment as a possible source of supply for the Security Assistance Element – Afghanistan (SAE-A), which had the mission of equipping and training the new Army of Afghanistan. Despite this high command interest from the CONUS end, and the efforts of MG Eikenberry, Commander of the SAE-A, vehicles excess to U.S. Army needs did not begin to move to Afghanistan until late 2003. Bureaucratic impediments to Foreign Military Sales (FMS), specifically statutory language that allowed FMS only to nations formally recognized by the President as allied with the USA, prevented a rapid and timely shipment of the excess to Afghanistan. Since plans exist to use this facility to improve the Nation's strategic agility, due to it's location near a major Mediterranean port, investments in infrastructure will have to be made to realize the vision.

(Annex 3 to Appendix A)
Visit to Southwest Asia (Saudi Arabia, Qatar, Kuwait, and Afghanistan) and Europe (Italy and England) – 20-27 September 2002

As planning and preparations for Operation Iraqi Freedom intensified, GEN Kern traveled to Southwest Asia to examine ongoing actions and identify emerging issues and priorities. He was accompanied on the trip by the Honorable Raymond F. Dubois, the Deputy Under Secretary for Defense (Installations and Environment). The trip provided Mr. Dubois valuable information on installation issues and his perspectives and insights contributed greatly to the success of the trip.

Italy

Livorno was the hub through which excess equipment stored in APS 2 was being shipped to SWA (in most cases). GEN Kern issued the following orders:
- Directed staff to look at merging AMC Europe and AMC Combat Equipment Group – Europe into a single command.
- Directed staffs to ensure that the facility plans for Livorno are included in the POM.
- Directed USASAC to continue to push for permission to ship excess 2 ½ and 5 ton trucks to Afghanistan. This effort continued to be delayed by Army Staff reluctance to formally declare the stocks excess to Army needs, as well as the lack of a Presidential finding that Afghanistan was allied with the USA.

Southwest Asia

Kuwait, at both Camp Doha and at Camp Arifjan, was the site of intense activity and preparations for future combat operations. Prepositioned equipment stored in APS 3 (Afloat stocks), APS 2 (Europe), and APS 5 (Qatar) was being shipped into Kuwait for staging. Equipment already in Kuwait was inspected and repaired. Camp Arifjan, a sprawling desert complex in southern Kuwait, was established to support future operations. This decision resulted in a very large construction requirement at a completely undeveloped and austere site.

The following key logistics areas and issues were assessed and discussed in detail during this visit. Tasks and orders to the AMC staff and subordinate commands included:
- Assess aviation engines within SWA to ensure we do not experience the same type of problems that we had in Afghanistan.
- Assist SWA with reducing the order-ship time for M1 Parking brakes (currently over 60 days).
- Develop procedures to rapidly move Patriot components within theater from one country in theater to another (i.e., from Qatar to Kuwait).
- Develop theater logistics priority intelligence requirements (PIRs) for fuel, water, bridges, etc.
- Increase SIPR net access for key AMC personnel to increase situational awareness and support to the deployed force.
- Identify the commonality investments we can make in the fleet to get the best return, i.e., Modifications Work Orders (MWOs) vs. replacement of parts.
- Identify critical Class IX requirements for present and future operations.

- Develop procedures to improve customs operations to ensure more efficient and effective back haul of Class IX from the theater.
- AMC SWA tasked to examine and provide feedback to the CG on the condition of the M2s arriving in theater from Livorno, in Tuscany, Italy (APS-2).
- Place RF tags on Class VII major items for in-transit visibility.
- Develop a CONPLAN for C2, transportation, food, equipment, etc., to support AMC future operations, i.e., a requirement to displace AMC support elements forward in support of combat operations.
- Review and assess the impact of departing civilians and contractors in the event of State Department actions that direct civilians to leave the theater. Review contract clauses to determine impact.

Afghanistan

Combat operations and stability and support operations continued in Afghanistan. Austere facilities were being replaced with various quality of life upgrades to support sustained operations in country. Issues and tasks resulting from this visit included:
- Assess the In-Transit Visibility (ITV) problems with DLA, Air Force, CENTCOM, and EUCOM to determine why system is currently not working. Develop solutions that ensure end-to-end visibility (solution must include bar coding and radio frequency tags).
- Assess food service operations and support from CONUS to the theater (review availability of fresh food sources in theater – consistent with force protection requirements).
- Assess problem with leaking fuel bags in Bagram – identify a solution (TACOM).
- Assist with efforts to obtain ten Maintenance Facility clamshells for operations in Afghanistan.
- Assist SWA with acquiring AM2 matting for use in life support areas.

Qatar

Qatar continued to expand as a logistics hub supporting operations in SWA. APS equipment stored in Qatar was inspected, classified, and incrementally shipped by sea to Kuwait. A combination of Army watercraft: legacy Logistics Support Vessels (LSVs) and ultramodern Theater Support Vessels (TSVs) executed this mission. CENTCOM initiated plans to establish a forward HQs in Qatar. Their preferred site at former AMC equipment storage warehouses (Al Udeid Air Base) resulted in a loss of facilities for AMC. Issues and tasks resulting from the visit to Qatar included:
- Develop personnel accounting system for AMC in theater, to include contractors.
- Provide a Multi-Media Communications System (MMCS) package for PM SANG (Saudi Arabia).
- Develop an AMC SWA Website to provide situational awareness on key logistical issues.
- Find an in-theater capability to perform water testing in theater rather than sending samples to CONUS.
- Review theater medical evaluation procedures (Al Udeid).
- Provide a list of any Class VII needed in theater.
- Capture now the lessons learned and review the lessons learned from Desert Shield and Desert Storm to make sure we are not repeating past mistakes.

(Annex 4 to Appendix A)
Visit to the Pacific AOR (Hawaii, Korea, and Alaska) – 23-28 March 2003

Although the war with Iraq began on 19 March support to the rest of the Army continued unabated. In recognition of this, GEN Kern returned to the Pacific Command area of responsibility during the height of the ground offensive into Iraq. During his visit to the Pacific, General Kern stressed several issues at each of the locations. First, he solicited input and assistance from field commanders on the configuration of the Army Field Support Command (AFSC) and the Theater Support Commands (TSC). Second, he stressed the importance of re-evaluating how we reconstitute our Army Prepositioned Sets (APS) after Operation Iraqi Freedom, to support Army Transformation. Finally, General Kern identified his biggest challenge is the recruiting of new workers into the AMC work force to replace many professionals who are or will soon be retiring; he sought the support of leaders in the Pacific to attract qualified employees to support his transformation of the AMC work force. A wide variety of issues, summarized below, were brought to GEN Kern by the PACOM chain of command for his information and action.

Hawaii

During a discussion with Admiral Fargo, PACOM Commander; LTG Campbell, USARPAC Cmdr; and MG Olson, 25th Infantry Division Commander; GEN Kern identified specific issues being worked that will potentially affect the PACOM theater. These included Future Combat System (FCS) design; Stryker Brigade Combat Team (SBCT) activation; reconstitution of APS (right equipment at the right location); and reorganization of the Pacific AOR Logistics structure to support current and future requirements.

PACOM identified current basing options being studied to improve logistical and operational capabilities in theater. BG Kennon, PACOM J4, suggested that an extended range Theater Support Vessel would be useful; however, GEN Kern suggested using Large-Medium Speed Roll-on Roll-off (LMSR) and TSV ships to meet intra-theater requirements in the Pacific.

Based on PACOM inputs, GEN Kern directed a study to be completed NLT 1 Jul 03 on Army APS prepositioning strategy. He identified the Logistics Management Institute (LMI) or another appropriate agency as lead to develop a strategic APS reconstitution plan.

In a more traditional AMC role, GEN Kern was briefed by 25th ID that they lacked GS/Depot capability to repair M119A1 howitzers, and are experiencing significant problems with specific components (buffers and recuperators). The AMC staff reported that a MWO upgrade to the howitzers was scheduled for application in July 03. The Division requested that the conversion be conducted in Hawaii and that AMC provide long-term GS and/or Depot maintenance capability on the island.

Korea

MG Edmunds, CG, 19th Theater Support Command, reported that SWA current operations were negatively impacting Korean theater Order Ship Time and backorders. GEN Kern discussed leveraging post-hostility operations in SWA to improve ammunition readiness in Korea. He also planned to request that BG Boles, CG of AMC-LSE SWA in Kuwait, visit with or contact MG Edmunds to discuss lessons learned from Southwest Asia operations.

GEN Kern requested that MG Edmunds and MG Miller (Eighth Army) assist AFSC in planning for AFSC/TSC integration. Recommendations should include reconstitution of APS, mission and basing for TSVs, and SBCT deployment and support concepts. Concept and plan should include ability to support operations across the Pacific, not just Korea

Alaska

GEN Kern met with MG Brown, USARAK CG, and discussed a variety of issues related to the impending Stryker Brigade activation. These included the strategic position of Alaska, and the ability of its infrastructure (air, sea, rail, and highway systems) to support SBCT deployments. GEN Kern recommended that USARAK and USARPAC request the Army Staff consider a plan to place a Stryker battalion prepositioned afloat to support PACOM requirements. GEN Kern emphasized the importance of integrating the Installation Management Agency (IMA) - Alaska into the supply distribution system to ensure end-to-end supply distribution visibility, and the possible use of LOGCAP to support SBCT fielding/deployments in Alaska. MG Brown reported that, unlike Fort Lewis, USARAK did not have Echelons Above Brigade (EAB) CSS units to support its SBCT. GEN Kern tasked USARAK and AFSC to build a standard Army model for echelon above Brigade support to Stryker Brigade Combat Teams. GEN Kern and MG Brown discussed the excess equipment generated during the SBCT fielding. GEN Kern tasked the U.S. Army Security Assistance Command, another AMC MSC, to assess the use of Foreign Military Sales (FMS) to reduce USARAK excess.

(Annex 5 to Appendix A)
Visit to Southwest Asia, Poland, and Germany – 20-27 June 2003

From 20-27 June 2003, General Kern visited key sites and leaders in Kuwait, Poland and Germany. Trip objectives included: discuss APS RESET and tour APS facilities; tour support facilities in Kuwait; and discuss RESET and associated support issues. In Poland GEN Kern met with Senior Polish leaders to discuss Lessons Learned from OIF and U.S. support for the Polish Multi-National Division in Iraq. While in Germany, GEN Kern discussed logistics issues and support for OIF with the USAREUR CG and G4.

Kuwait

During a working breakfast with key leaders in theater (MG (P) Christianson, BG Boles, BG Newman and COL Cartwright) the following issues were discussed:

Distribution Operations. On this subject the following observations and points were raised:
- End-to End Distribution needs to be defined; the "end" of the distribution chain is not the Theater Distribution Center in Kuwait, but the customers' motor pools.

- OIF operations demonstrated that effective theater distribution requires visibility of items in the "last tactical mile" as well as on strategic transportation assets.

- Unique identifiers are needed for every item in the distribution system which would include visible tags tracked by the customer, supplier and transporter. Embedded, passive tags would be useful for major assemblies and sensitive items.

- Simplicity in tracking shipments is needed. Examples of systems to model include Amazon and FEDEX. Currently there are (3) different numbers used to identify requirements that don't match up which include:

  - Transporters – Transportation Control Numbers
  - Suppliers - Document Numbers
  - Customers - Requisition Numbers

- APS RESET funding is needed within 60-90 days. The Army needs to start putting equipment on to ships and sailing these to appropriate pre-positioning locations, ASAP.

- The Army needs to make the following key decisions immediately:

  - Forward Basing: Where, and When?
  - Army Force Structure: What will change?
  - Required APS equipment status: Where, How Much, and in What Condition?

- Readiness Standards for contracted equipment: The Army must train the force to ensure appropriate standards for contracted equipment are adequately defined in future contracts.

- The Army must develop more durable tires and track for vehicles in the SWA AOR. Consumption rates for track and tires are extraordinarily high in this desert environment.

- There is no capability to create special parts in SWA. AMC Research & Development activities have produced a "Mobile Parts Hospital" that can produce specialized parts on demand. This would provide a powerful capability to the theater to quickly create special parts and/or tools not available in theater. Since this capability was developed in conjunction with private industry, AMC will seek permission to deploy the Mobile Parts Hospital with its research partners, immediately.

- Force Provider RESET – Currently there is no RESET or overhaul plan or funding to support returning the Force Provider equipment sets to a ready to issue state. Since all Force Provider sets (temporary base camp structures) are committed, this is not an immediate issue.

- Modification to 60 AMP HMMWV Alternator – A TACOM Forward Repair Activity reported that FOD (Foreign Object Damage) is causing premature failures in these alternators. Their recommendation is to modify the alternator by placing a small screen over the alternator lower housing.

- AMC Partnership with DLA – BG Boles requested that HQs AMC work with DLA to establish a distribution center in Camp Arifjan, Kuwait. Space is needed to support this request. A DLA Distribution center should not be linked to a single AMC MSC commodity FRA, but instead should be a single storage operation that supports all customers in Kuwait with both DLA and AMC managed parts and spares.

At the end of the visit, GEN Kern directed that a historical record of logistics actions in IRAQ be compiled. The AMC Historian stated that there was an ongoing effort to capture the data regarding the conduct of the war, including the human element and spirit of the logisticians.

Poland

GEN Kern met with Ambassador Hill to discuss the U.S. relationship with Poland. It is strong and growing. Future Pol-Mil efforts will focus on increasing their involvement in NATO. An example is their upcoming deployment to SWA.

After the meeting with the Ambassador, GEN Kern met with the Research, Development, and Engineering Command (RDECOM) Science & Technology Team Leader for Europe (COL Howell). COL Howell briefed GEN Kern on the following technologies they are tracking:

- Thin Film Technology – Poland has had significant success in thin film research. RDECOM directed to compare Polish and Korean thin film industries.

- HELLAS Laser Obstacle Detection System – This system is designed to prevent wire strikes by low-flying aircraft. GEN Kern requested information on this system to include unit costs, ease of avionic integration, and system specs.

- Mine Protection and Clearing Vehicles – GEN Kern requested information on the DINGO mine and small arms protection vehicle and the MINECAT mine clearing system. These systems are a potential candidate to relieve the shortage of the Armored HMMWV in theater. Specific information was requested on its air transportability and remote operability for light and quick reaction forces.

- Deployment of the Polish Brigade and assumption of command of Multi National Division in Iraq – GEN Kern met with key Polish Army leaders and was briefed on the organization of the Polish Army and issues regarding their upcoming deployment to SWA. GEN Kern was asked to intervene with appropriate leaders regarding the Polish desire to deploy with U.S. assistance to theater very rapidly. He placed calls from the runway to senior leaders in the Pentagon, reporting on the Polish request and recommending that it be supported. (On 25 Jun 03 SECDEF approved funding to support this deployment, and USAREUR was immediately tasked to lend its expertise to the Poles to support their movement to Iraq). The Polish Land Forces commander expressed a concern regarding logistical support and living conditions for NATO forces in IRAQ, and GEN Kern described LOGCAP and the resources it brings to meet this requirement. The Commander of the Polish Army requested HMMWVs for use in Iraq. Their total requirement was approximately 250.

In support of Operation Iraqi Freedom, the U. S. Army Security Assistance Command provided through foreign military sales, a total of 34.7 million dollars worth of equipment for the Polish Multinational Division (PMND). The PMND, consisting of Poland, Ukraine, Bulgaria, Latvia, Lithuania, Philippines, Romania, Slovakia, Spain, Thailand, Mongolia, El Salvador, Honduras, Dominican Republic, and Nicaragua, received load bearing equipment, tents, demining equipment, mosquito nets, protective vests (9,408 sets) night vision goggles (549 AN/PVS-7), computer equipment, NBC equipment, and communications equipment. All requirements were coordinated with USCENTCOM and equipment was delivered between August 2003 and February 2004. There has been no support to the Japanese Deployment. We sell materiel to the Japanese rather frequently but not earmarked for Operation Iraqi Freedom.

(Annex 6 to Appendix A)
Visit to Southwest Asia Trip – 22-30 September 2003

GEN Kern returned to Southwest Asia in late September, accompanied by MG Thompson, CG TACOM, and MG McManus, CG AFSC. In addition to checking on progress in the theater logistics effort, GEN Kern's priorities included implementing fixes to theater distribution challenges, especially in the area of retrograde of repairable materiel. He also wanted to visit combatant commanders and hear, first hand, their logistics issues and concerns. He also carried a prototype armored door for application to HMMWVs, along with test results and video footage of the door's ability to withstand RPG hits. He wanted to personally brief the CG, CJTF-7 on the door and seek his concurrence on rapid production and fielding of this interim fix to the threat from IEDs.

Kuwait (Camp Arifjan – CFLCC's Logistics Hub)

GEN Kern spent half a day visiting units and facilities providing critical logistics support to CFLCC's operations in Kuwait and Iraq. Support to deploying and redeploying units, storage and issue of bulk quantities of supplies, convoy staging, and depot-level maintenance are some of the key activities performed at Camp Arifjan. Activities/sites visited included:

- Combat Equipment Battalion-Kuwait (CEB-KU). Their mission is to store, maintain, and prepare for issue, prepositioned combat equipment. CEB-KU received all of 3d Infantry Division's equipment (drawn from prepostioned equipment from APS 3 (afloat) and 5 (Kuwait and Qatar) as 3ID redeployed from IRAQ. Their immediate challenge was to RESET this equipment while they provided combat-ready equipment to deployed units.

- Forward Repair Activities – These were manned by employees from Anniston Army Depot, Red River Army Depot, and Sierra Army Depot. In addition to repairing equipment, they were installing Add-On Armor and assisting units in designing feasible "gun truck" options for convoy defense.

- Theater Distribution Center (TDC) – This large and complex operation was operated by a USAR Battalion headquarters with a variety of specialized companies, detachments, and contract labor. The TDC staff was successfully receiving, sorting, and onward moving pallets and containers of cargo, within 24 hours or less. The team established and operated this site with no previous training in this operation, and no doctrinal template to guide them. They were not using any specialized automated distribution capability. They generally could not see all inbound cargo through existing Intransit Visibility (ITV) capabilities (although they had access to all current systems). This lack of ITV was a recurring theme expressed by logisticians across the theater.

CFLCC Headquarters

GEN Kern met with MG Speakes (Operations) and MG Taguba (Support) at CFLCC HQs in Camp Doha. Concerns raised by CFLCC included: distribution challenges; lack of

communications capability to perform both logistics and routine personnel actions and promotions; sourcing of replacement personnel; and indications that the host nation will begin seeking a scaled down U.S. presence as a result of the victory in Iraq. Two major concerns came from the CG, CFLCC: modernize equipment stored and maintained in the prepositioned sets; and that the sets include a robust port opening package. (A concern with the entire LOGCAP process, i.e., its ability to respond rapidly, was raised as well).

CG tasked MG McManus and AFSC to develop a new and holistic management plan for LOGCAP. The plan needs to address persistent theater concerns expressed over LOGCAP's perceived slowness to respond, plus long-term management of expenditures to ensure that a solid audit trail is maintained for this program.

GEN Kern conversed with the CG, 101st Air Assault Division while at Camp Doha. The 101st CG is concerned with the replacement of combat losses (CL VII) and wanted to have the losses replaced with equipment in the APS set, permanently. Current HQDA policy is that the theater will loan the Division equipment from the APS sets, but that they must turn it in prior to redeployment to home station. This policy will create "instant unreadiness" of key combat divisions, if followed. The CG, 101st asked that GEN Kern request that DA G3 change this policy to allow AMC to permanently fill combat losses of units in theater from APS stocks.

Qatar

The CG's party next visited the AMC & CENTCOM facilities at As Saliyah Air Base in Qatar. GEN Kern, Commanders, & Staff identified the following issues:

- QATAR is a superb location to implement "quick hit" solutions to joint doctrine and Joint Theater Support Command challenges. It can serve as the Intermediate Staging Base (ISB) for the theater, as it is centrally located to current operations in Iraq, Afghanistan, and the Horn of Africa. Possible initiatives include joint distribution solutions; establishment of theater forward repair depots/activities, both ashore and afloat; joint RESET of Army and Air Force life support equipment; and innovative solutions to APS RESET challenges.

- Patriot maintenance/RESET operations requires support from a team from the Letterkenney Army Depot.

- Excess Army equipment in both QATAR and Kuwait needs to be moved into Foreign Military Sales (FMS), quickly. Both the Afghan and the New Iraqi Armies have urgent requirements for this equipment.

CJTF-180 (Afghanistan)

GEN Kern's meetings with the senior leaders of CJTF-180, including the CG (LTG Vines), produced the following items for discussion and action:

- Despite some severe challenges posed by the remoteness of Afghanistan and the length of LOCs to the country, the TF is faring well.

- DLA Prime Vendor support is working well, as is bulk fuel delivery over land from Pakistan.
- Units encounter great difficulty in connecting to the wholesale logistics system when they deploy. Their automated logistics systems require intensive management efforts to transfer the automated processes from home station to deployed locations. Specifically, the DODAAC change process has not worked for deployed units, and neither has an attempt to change TAC codes in SARSS boxes to ensure delivery to the unit's correct, current location.
- ITV of inbound cargo is virtually non-existent.
- LOGCAP has been difficult to implement in Afghanistan due to the lack of suitable host nation labor.
- The biggest maintenance challenge in theater is the multitude of non-standard, experimental, and/or foreign made mine clearing devices. In general, this equipment has been fielded with neither adequate training nor adequate spare parts, and contractor support has been spotty.
- The other major logistical challenge is 105mm propellant, and a burdensome ammunition-reporting requirement. The propellant's bags are decaying due to age, which has resulted in shortages in combat situations (CJTF-180 acknowledged that JMC is aware of the issue and is working a solution to issue new propellant).
- In response to a question from GEN Kern, the 10th Mountain Div DISCOM Commander stated that mobile fuel labs are absolutely required in CONOPS. CG, TACOM added that they are working a project to reduce the size and weight, and thus improve the deployability, of the mobile fuel labs.
- CG, CJTF-180 requested additional hand-launched UAVs to support operations. The system that will be deployed is RAVEN; a fielding support team is scheduled to deploy to support this system in mid-October.
- CG, CJTF-180 requires a combat vehicle that combines mobility with survivability, but can also be helo-lifted in the high altitudes of Afghanistan. His preferred solution is the SOF Modified HMMWV; however, he is willing to use his theater as a "battle lab" to test new systems and concepts.
- CG, CJTF-180 supported establishing equipment pools in theater that eliminated the requirement for units to deploy home station equipment to the theater of war. His goal is that the next division rotations into Afghanistan fall in on equipment in place.

Baghdad and visit with DCG & C4 – CJTF-7

The Deputy Corps Commander/Deputy CG and the C4 for CJTF-7 in Baghdad raised the following points with GEN Kern:

- OPTEMPO for the force remains higher than peacetime planning (TRM) models allowed for funding of spare parts (ASLs/PLLs). Parts are now flowing but only in sufficient quantities to be placed against specific repair orders; depleted ASLs/PLLs are not being replenished.
- CJTF-7 supports a 2/3 motorization of the occupying divisions, and equipment swap-outs in theater between arriving and deploying units, including aviation.
- Vehicle deadlines due to track shortages are almost eliminated.
- They confirmed that the retrograde of reparable items is a high priority for CJTF-7.
- LOGCAP was discussed at length. The DCG emphasized that LOGCAP is saving the Army money in the long-term. While LOGCAP is mostly a success story, there were difficulties the contractor faced operating in a non-permissive environment such as Iraq. CJTF-7 recommended

three actions for future LOGCAP deployments: (1) Deploy the LOGCAP Support Unit early, (2) Put a warranted Primary Contracting Officer in theater to administer contract operations, and (3) Embed LOGCAP planners into Combatant Command planning staffs early.

GEN Kern next met with COL Paul Plemmons, an AMC Depot Commander detached to CJTF-7 to lead a survey team that has been formed to identify, secure, and prepare for contracted demolition, the vast array of ammunition storage sites that litter Iraq. The team estimated that there are at least 102 sites, of at least 15 square kilometers, containing over 600,000 tons of conventional ammunition. (COL Plemmons' success in this mission resulted in AMC receiving a "permanent" tasker to provide the team OIC until mission completion!)

4th Infantry Division – Tikrit, Iraq

MG Ordierno, CG, 4ID, briefed a broad range of topics. His specific logistics concerns were: lack of in-transit visibility of in-bound cargo; lack of logistics connectivity during combat operations; and the necessity for plus-ups to peacetime ASLs and PLLs prior to initiating combat operations. Some other key notes from the 4ID visit:

- The division deployed in discreet force packages, and forced MTMC to "waste" cargo space on ships to preserve force package integrity. This paid off when the Division was able to unload two brigades, conduct a tactical road march form Kuwait to Baghdad, and then attack north to Tikrit, all in the ten days after the first division ship docked in Kuwait.

- FBCB2 (Future Battle Command, Brigade & Below) – the divisions battlefield internet system, worked well, including during the division's offensive operations.

- 4ID recommends replacement of MSE with commercial satellite systems, such as the Very Small Aperture Terminal (VSAT). VSAT is currently being used to transmit logistics traffic; the Division CG would like this system (or TACSAT) to every battalion and brigade HQs in the Division.

- The Palletized Load System (PLS) is the key distribution platform within 4ID's battle space. Theater distribution platforms must provide loads that can be easily transloaded onto tactical PLS for rapid distribution to customer units.

- The Joint Deployment Logistics Module (JDLM) is being used to "tie together" feeds from MTS and DTRACS to provide the Division with a logistics common operating picture. (The 3d COSCOM used JDLM in a similar manner).

- ITV and Distribution – MG Ordierno stated that he would prefer that a day or two of additional time be added to the customer wait time, in CONUS, to ensure that pallets and containers are built correctly, rather than having a mixed load shipped to the theater. Separating multi-unit loads in the desert adds anywhere from five to seven days to customer wait time, so shipping pallets and containers quickly from CONUS is a false economy in distribution. This sentiment was echoed at every unit visited.

LTG Sanchez, CG, CJTF-7 discussed a variety of topics. Key points related to logistics include:

- LTG Sanchez concurred with establishing equipment sets in theater to avoid transporting huge quantities of equipment to and from the U.S.. A maintenance cycle between unit swap outs is needed; he recommended that AMC establish a Combat Equipment Battalion, Iraq that would maintain a second set of equipment, to issue to newly arriving units while in-place units continue to execute their missions with another set.

- LTG Sanchez approved the Army Research Laboratory-developed HMMWV door, and GEN Kern immediately ordered production to begin.

- LTG Sanchez asked about innovations in protection, for gunners and vehicles. MG Thompson discussed a new machine gun pedestal design the TACOM FRA is installing in HMMWVs.

- LTG Sanchez repeated the frustrations we heard across theater with the lack of logistics communications and in-transit visibility.

1st Armored Division – Baghdad, Iraq

The 1st Armored Division had taken over 300 casualties to date while responding to the terror attacks against the UN and other facilities in Baghdad, so it has consumed CLASS VIII at a high rate. They were not satisfied with the responsiveness of the medical logistics system. They had difficulty ordering medical supplies, and in receiving needed items in a timely manner. They also reiterated the complaint with theater distribution and ITV challenges.

LSA Anaconda (3d Corps Support Command) – Balad Airfield

The 3d COSCOM and its subordinate units supported 130,000 soldiers, civilians, and contractors daily. 50% of the COSCOM are Reserve Component soldiers. The COSCOM had, to date, taken over 60 casualties from convoy ambushes since the start of the war. They were preparing for the arrival of the Stryker Brigade and the associated support organizations. They were using the Iraqi rail system effectively and planned to increase its use. Plans called for Balad to soon become the strategic APOD for Iraq, so additional USAF personnel were moving there as well. Aerial delivery of supplies to Balad was almost nonexistent at this time, despite the theater's belief that intra-theater airlift is being fully utilized.

The 130th Engineer Brigade briefed and demonstrated an experimental mine clearing system they are using to counter the Improvised Explosive Device (IED) threat. The system consists of several South African Vehicles and trailers: Meerkat and Buffalo are the centerpiece vehicles, to which the engineers have added an M113 and HMMWVs for C2. The system works well; the soldiers are crafting tactics, techniques, and procedures for best use of these systems, literally in the heat of battle. GEN Kern tasked the RDECOM to dispatch a team to collect lessons learned from the engineers on this system, followed by key short-term tasks to integrate additional capabilities immediately into this system: UAV, sniper systems, and Blue Force

Tracking and/or FBCB2. GEN Kern also wanted to link the engineers with U.S. SOCOM – for assistance in countering the enemy's tactics.

In conjunction with Balad emerging as the logistics hub for Iraq, establishment of AMC Forward Repair Activities at Balad was well underway and paying dividends in responsive support to the units. In addition to Team Armor Partnership (TAP) supporting the 4ID's advanced armor systems, a HMMWV service center and CECOM support activities were established and growing. GEN Kern tasked TACOM to plan to establish a heavy wheeled vehicle service center in Balad as well.

21st Theater Support Command – Kaiserslautern, Germany

GEN Kern and his party returned to the U.S. via Germany. They traveled on C141s carrying casualties from the theater. GEN Kern subsequently recommended to the Chief of Staff that all General Officers travel at least part way on casualty aircraft, as the interaction between him and the casualties and crew was a morale raiser for all.

During an aircraft change at Ramstein Air Base, GEN Kern discussed the support provided to the 173d Airborne Brigade by the 21st TSC during the 173d's operations in Northern Iraq. The 21st support continued to the present for the 173d and could serve as a model for how a TSC could directly support a maneuver brigade or unit of action in the field. On the subject of theater distribution and ITV, the 21st TSC reported that they continuously monitor 38 different systems to maintain their situational awareness of cargo moving in the system. This illustrates how cumbersome and complicated is the task of managing the current distribution system.

(Annex 7 to Appendix A)
Visit to the Pacific Command (PACOM) and Korea – 12-21 February 2004

This trip was notable for the ease in identifying the tremendous progress the theater has made in numerous areas since GEN Kern took command of AMC. These included:

- Maintaining and improving their readiness for war.

- Providing support to Operations Enduring Freedom, Operation IRAQI Freedom, Operation Noble Eagle; deploying forces to the CENTCOM AOR.

- Converting two brigades to Stryker Brigade Combat Teams (SBCTs).

- Building up Prepositioned stocks.

- Supporting the readiness and deployment of Allied Forces.

- Developing and testing joint logistics initiatives.

U.S. Army Alaska (Fort Richardson)

MG Brown, CG, USARAK, briefed on the status on the conversion of the 172d Infantry Brigade to a Stryker Brigade. The Army has developed different methodologies in activating the first three SBCTs (two at Ft Lewis and the 172d). MG Brown commented that the sixth SBCT (PA Army National Brigade) is forging ahead with their preparations but that standardized, DA approved approach to activating the SBCT would especially benefit this unit. SBCT activation is an extremely complex task, made even more so by the fact that completion of the process will likely mean that the Brigade will deploy immediately into combat. The inventory process especially, which includes equipment swaps and installation of accountable property onto a unit's current fleet, is cumbersome and time consuming. GEN Kern tasked AMC activities to press hard on developing automated inventory capabilities to ease this burden on a modular, expeditionary Army. He also tasked for standard designs for our HMMWV fleet, with proposed naming conventions, that will allow U.S. to specify what type of vehicle should be fielded to which specific requirement. An example would be a nomenclature/number for a HMMWV with FBCB2 and Blue Force Tracking installed, and a proposed basis of issue for this type vehicle

The USARAK G4 briefed several logistics issues. They included:

- Adding items fielded under Rapid Fielding Initiative (RFI) to the installation Central Issue Facility menu.

- Army policy on early requisitioning of equipment directed to remain behind in the combat zone when a unit deploys.

- Cold Weather Items – GEN Kern was briefed by a soldier test team on deficiencies in Army cold weather issue gear. Cold weather items can be vastly improved in every area: soldier dexterity while wearing, waterproofing, warmth, and moisture wicking. They recommend that several commercially available products, currently being evaluated by Natick, be added to the cold weather clothing bag.

U.S. Army Japan (USAR-J), Camp Zama

MG Perkins, CG, USAR-J, briefed that his major issue is the potential for I Corps to be transferred to Japan to assume USAR-J's roles and missions, while continuing to perform its wartime mission in support of U.S. Pacific Command (PACOM). An unanswered question this drives is whether a single Theater Support Command can support the needs of Korea, Japan and the rest of the PACOM AOR. A major support issue USAR-J was working concerned the deployment of Japanese Ground Self Defense Force units to Iraq. USAR-J is providing training and advice and assistance to the Japanese as they prepared and deployed their force (this is the first significant deployment of Japanese forces, to a combat zone, since World War II).

U.S. Forces - Korea (USFK)

During this visit GEN Kern met with GEN LaPorte (Commander, USFK), LTG Campbell (CG, Eighth U.S. Army), MG Wood (CG, 2ID), and MG Edmonds (CG, 19th TSC). A variety of issues were discussed with this group, including depot maintenance on the Korean peninsula, ammunition retrograde, termination of the 2ID's DS-Plus M1 engine repair program, the status of APS-4, and retrograde of excess stocks from APS-4. USFK Commanders have long favored increased depot maintenance on the peninsula, using Korean industry in combination with U.S. depot expertise. GEN Kern pledged to expand the contracting of depot maintenance on the peninsula, to better support readiness in Korea and to take pressure off the CONUS depots. This expansion of depot repair partnerships will save transit time for components, save on transportation dollars, and also offer the U.S. the opportunity to leverage host nation cost-sharing arrangements.

GEN LaPorte stressed the importance of the ammo retrograde program. Returning obsolete ammunition to CONUS from Korea frees storage space for modernized munitions, plus it provides a source of TNT for bomb production. Currently, our primary source of TNT for bomb production is 8" artillery shells returned from Korea. Continuing retrograde of other shells, especially obsolete 105 mm shells, is a potential source of supply of additional TNT. A key task taken for the Joint Munitions Command is to prevent scheduled vessels from being diverted from the Korea retrograde mission by lesser priority missions.

LTG Campbell raised an issue of excess Class IX repair parts in APS-4 that cannot be accessed by the theater for immediate readiness requirements, due to it being "war reserve protected." To make this situation worse, disposition instructions are arriving too slowly to accomplish rapid elimination of this large stockpile. GEN Kern issued instructions to the staff to seek immediate release of these stocks to Korea from the Army G4.

2d Infantry Division

The 2ID briefed an outstanding training and readiness program, and identified no serious logistics issues even though priority of support was going to units in Iraq and Afghanistan. They agreed to terminate their "Direct Support – Plus" (DS-Plus) maintenance program on M1 engines in the spring of 2004, but requested that AMC provide funding to keep their current DS-Plus LAR on hand for an additional year to assist units in maintaining tank readiness during the transition. GEN Kern agreed to this request and also directed a review to ensure that adequate stocks of repair parts continued to flow to Korea.

19th Theater Support Command

During a logistics issues brief the 19th identified several issues affecting them. The 19th's Korean Distribution Management team echoed complaints about supply distribution that all other theaters reported. Korea stated that only 4% of containers received at the port of Pusan are RF ID tagged, and only 30% of air pallets are tagged. Most tags lack level six details of the contents of the pallet/container. They also have zero visibility of other services' cargo now. The Vendor Initiated Parts Resupply (VIPR) program, a supply initiative inspired by Best Business practices, was about to begin a test in Korea, and both the 19th and DLA had high hopes that this initiative would improve critical weapons system maintenance. Korea planned to visit with CENTCOM to view the CDDOC and the Logistics Common Operating Picture (LCOP) used there to assist in their development of an LCOP as part of the Global Combat Support System – Korea (GCSS-K). They are also developing a joint requisitioning system that will allow forces deployed to Korea to submit automated supply requisitions to the theater MMC, regardless of the branch of service.

Saipan

Maritime Prepositioned Squadron 3 (MPSRON 3)

GEN Kern stopped in Saipan to visit the MPSRON and to inspect the cargo on the USNS Watson, a Large, Medium Speed, Roll-on Roll-off Ship (LMSR). Currently there are three USMC, one USAF, and one U.S. Army vessel (the Watson) in MPSRON 3, but the numbers will grow overtime as prepositioned stocks are reconstituted. The Watson contains a 1 x 1 brigade with combat support and combat service support assets, as well as sustainment stocks (Class I, water, III packaged, etc.). It was recently loaded with its equipment and it is the first ship to be deployed under the Army's new afloat pre-positioning strategy.

From previous experience it's clear that maintaining Prepositioned equipment properly requires that it be exercised regularly. This applies to the set on board the Watson and also the Army watercraft Prepositioned in Japan. GEN Kern tasked the staff to explore exercise options with the Army, PACOM, and Joint Staffs, the goal being to develop a regular exercise schedule that is synchronized with modular unit training and cyclical maintenance requirements.

Hawaii

U.S. Pacific Command (PACOM) Headquarters

After a session with the Commander, PACOM (ADM Fargo), GEN Kern held a Logistics Roundtable discussion with the PACOM J4 staff. Four major logistics issues: (1) POL assets in Korea, specifically the Inland Petroleum Distribution System (IPDS) and 5,000 gal tankers; (2) APS-4 Sustainment Stocks; (3) Aviation Class IX availability; and (4) Inland Distribution plans, especially for POL, were discussed. PACOM also requested the early availability of the High Speed Vessel or Theater Support Vessel for PACOM and listed the advantages possession of these vessels would give to the theater. Transfer of title of War Reserve Stocks for Allies – Korea (WRSA-K) ammunition, from the U.S. to Korea, is another issue they are tracking and which is currently at the Department of Defense for review and signature.

PACOM is pushing an initiative to name the Defense Energy Support Center (DESC) as the DOD Executive Agent for fuel trucks. PACOM's desire is that a single executive agent will devise and implement a common acquisition strategy for fuel trucks and associated support equipment, for all the services. The benefit of this strategy will be common equipment across all four services, and possibly lower procurement costs due to bulk ordering of both equipment and spares.

U.S. Army Pacific (USARPAC)

Briefings at USARPAC showed that the U.S. Army in the Pacific is incredibly busy and agile. 31 of 35 active duty battalions in USARPAC are deployed, deploying, or transforming. Four National Guard units are also mobilized and preparing for deployment. The 25th Infantry Division is deploying in its entirety; one brigade was already in Iraq and the rest of the Division was preparing to deploy to Afghanistan. Their RESET will be unusually complicated, as both brigades will (probably) be required to leave their equipment in theater. Upon returning to Hawaii, the two brigades will both be reconstituted, but one will transform to a Stryker Brigade. Department of the Army help is already being sought in identifying equipment to backfill the brigades.

USARPAC is scheduled to station a High-Speed Vessel (HSV) in Hawaii sometime in FY 05. This vessel will replace a Logistics Support Vessel (LSV) currently assigned to Hawaii. At present the Army has not identified where the crew for the HSV will come from (current plan is to train LSV crews to man the HSV). The LSV that will be replaced in Hawaii will remain in service in SWA, so its crew is not available for the HSV.

25th Infantry Division

The 25th was actively planning for deployment, combat employment, Division RESET, and transition of one brigade to Stryker. The Division HQs will assume the role of the Combined Joint Task Force Headquarters, and the DISCOM will become a Joint Logistics Command. These are large missions, as there are presently 21 different coalition elements in Afghanistan.

The Division briefed that equipment shortages had been filled, manning concerns had been addressed, and the Rapid Fielding Initiative (RFI) had equipped soldiers superbly for the deployment. The Division Artillery successfully arranged a swap of howitzers with the 10th Mountain Division to preclude both divisions shipping their howitzers; however, other equipment swaps didn't occur due to the 10th's belief that their equipment in Afghanistan needed to be replaced rather than be reused. The division's logistics reconnaissance of the theater identified the fact that the DODAAC issue (permanent and temporary "deployment" DODAACs for a unit) is still creating confusion; they recommended that CJTF-180 be granted permanent DODAACs. GEN Kern was concerned that the DODAAC issue remains a source of confusion after over two years in Afghanistan, and he tasked the AMC G3 to find a fix for this recurring issue.

(Annex 8 to Appendix A)
Visit to Southwest Asia (Kuwait & Iraq) and Germany – 6-10 March 2004

GEN Kern followed his visit to the Pacific with a quick trip to Kuwait, Iraq, and Europe. This visit came as the massive rotation of forces between the OIF 1 units and their replacement OIF 2 units was hitting its peak. In addition to replacing the OIF 1 force, the Theater was dealing with the logistics challenges of integrating a large U.S. Marine Corps Ground Combat force into the theater, and also equipping Iraqi Army and Civil Defense units. Everyone in theater displayed tremendous energy and dedication to the wide variety of tasks that face a nation at war. Tremendous progress was readily apparent in Iraq and Kuwait, and our forces in Germany are equally engaged in supporting deployment, redeployment, and logistics operations in the Central Command (CENTCOM) area.

Ali Al Saleem Airfield, Kuwait

The first site visit occurred at the arrival airfield: Ali Al Saleem (AAS), a Kuwaiti fighter base out in the desert, west of Kuwait City. The Kuwaiti government wants the U.S. to move its operations from the Kuwait City International Airport (KCIA), and Ali Al Saleem is the most viable choice in Kuwait to replace the capabilities at KCIA. The Air Force and Army are ramping up their respective capabilities at AAS to support arrival and departure operations, as well as cargo reception and onward movement. Major construction efforts will have to occur at AAS to give it the same capabilities as KCIA. National Guard C-23 Sherpa cargo planes are also based here. The Army Movement Control Teams (MCT) at AAS is 100% Reserve Component, and it was doing an outstanding job supporting the ongoing force rotations.

Camp Arifjan

Camp Arifjan, an empty spot in the desert in the summer of 2002, is now a miniature military metropolis. Many thousands of soldiers, civilian employees, and contractors live or pass through there in support of the war effort.

GEN Kern first visited the retrograde yard. The team in this yard (soldiers, civilian employees, and Kellogg, Brown & Root contractors) has done outstanding work in organizing the yard and establishing processes that will enable proper identification and tagging of retrograde materiel. In conjunction with CENTCOM's Deployment and Distribution Operations Center (CDDOC), the retrograde team developed a ten day process to move retrograde materiel from the yard to the port, properly containerized and RF ID tagged. Unfortunately, the process was still hampered by start-up challenges as well as the demands of the deployment and redeployment of forces, so substantial amounts of retrograde materiel are still waiting to get on ships or airplanes. There are also several hundred containers of excess/retrograde/unaccounted for materiel that redeploying units have "dropped," without documentation, at various spots near the retrograde yard. AMC MSCs had teams searching the containers for high-dollar value items, in order to expedite the retrograde of the most critical repairable back to the depots.

A key lesson learned from this retrograde mission is the need to get a "Team Retrograde" established early in a theater of war. This team needs resources: wash stands, pressure washers, a SARSS box, and especially, trained personnel (currently KBR alone has 400 workers on site). Doctrine writers at the Combined Arms Support Command (CASCOM) and the Transportation and Quartermaster Schools need to see this retrograde operation and look closely at the procedures the theater has developed to ease the retrograde shipping process. The Army and the Joint community has to identify creative ways to solve this problem, before it starts, in the next theater of war.

GEN Kern's next stop was the Aviation Forward Repair Activity (FRA), currently operated by the 1107th AVCRAD (Aviation Classification & Repair – Depot). The 1107th is a Missouri Army National Guard unit and they have made a positive impact on aviation readiness in their two months in country. They are actively working a variety of logistics issues, to include staging a portion of their capability forward to LSA ANACONDA, and using the C-23s to speed the movement of critical aviation parts. They are concentrating on classifying and repairing engines and aviation survivability equipment, in particular the ALQ-144 (missile defense). The ALQ-144s being turned in to the AVCRAD were being stripped of parts at the owning units. This severely hampered the ability of the 1107th to repair and return these devices to theater stocks; instead, they had to return them to Tobyhanna Depot for rebuild. The 1107th will, like their predecessor unit, leave their equipment in Kuwait to ease the transition and stand-up of the next AVCRAD in theater.

The CDDOC, commanded by Brig Gen Baker, USAF, was the next stop on the tour. BG Baker and MG Mortensen, CENTCOM J4, briefed the CDDOC's successes and challenges. The CDDOC enjoyed success at effecting positive changes in strategic movements of both personnel and cargo. They were not doing any work in bridging strategic movements to the "last tactical mile," however. They had no tasking authority over CFLCC (Army) C-23s or trucks, for example, and CFLCC (through the 377th Theater Support Command) controlled all ground moves into Iraq. Within Iraq, movements are controlled by the CJTF-7 CG. This finding indicates a possible case for Joint Theater Logistics Commands that can exploit the synergy provided by Joint support agencies such as TRANSCOM to provide better support to units in the forward areas of the theater.

MG Mortensen mentioned that CENTCOM was pushing DOD to issue a policy on the use of satellite tags (with which they have enjoyed some success), but DOD currently was not getting behind them on this initiative. He also mentioned that current policies leave the details of RF tagging to the services, which results in a wide range of tagging procedures within the theater (another argument for increasing the "jointness" of logistics).

The TACOM FRA, the next site visited, was an extremely busy activity. Soldiers and civilian employees working there were performing maintenance, bringing Up-Armored HMMWVs (UAHs, shipped in from other locations) to serviceability, and installing Add-On Armor (AOA) and spare tire mounts onto unit HMMWVs. The Mobile Parts Hospital (MPH) also operated there and this activity was a huge success. They were producing a wide variety of high-quality machined parts, for both air and ground systems, on short notice and at low cost.

GEN Kern wanted to add additional MPHs to AMC's force structure – having this capability on site in places like Balad, Bagram, or in select CONUS locations would vastly improve readiness.

The final two site visits in Arifjan were to the General Support Class IX warehouse, and to the Combat Equipment Battalion – Kuwait's (CEB-KU) fielding yard. KBR took over operation of the Class IX GS warehouse and, by combining an experienced cadre with a large work force, succeeded in turning this operation into a success. Every standard metric of performance showed tremendous improvement in this warehouse. A lesson to be learned is that an activity like this must be considered for early resourcing by contract labor. CEB-KU continued to perform a variety of missions in support of both OIF 1 redeployment, and OIF 2 deployment. One of their major missions is RESET of the Prepositioned equipment set, which HQDA decided would be reconfigured. They were also hosting Program Manager representatives who are assisting in the issue of UAH and AOA, as well as armor kits for other vehicles such as HEMTTs and FMTVs.

Iraq

Baghdad – CJTF-7 Headquarters

GEN Kern met first with BG West, CJTF-7 C4. Unit rotations and Transfers of Authority between outgoing OIF 1 units and incoming OIF 2 units were CJTF-7's major concerns. Proposed changes in the C2 architecture for the theater were discussed, and GEN Kern stated his desire to retain an AMC General Officer presence in Kuwait while support operations there continued to grow. BG West took GEN Kern to a Property Book team, forward deployed from CEB-KU, which is assisting the C4 in accounting for property and in transferring property between OIF 1 and OIF 2 units. This task is immense, as equipment issued from APS; equipment purchased by or for KBR; installation property; and stay-behind equipment, all needs to be tracked and properly documented.

In the afternoon the party flew to Balad, home of LSA-ANACONDA, the 13th Corps Support Command, and the AMC LSE-Iraq. Also in residence at ANACONDA are the TACOM and CECOM FRAs, Team Armor Partnership (TAP), a Rapid Fielding Initiative (RFI) Team, and the HMMWV Support Center. The HMMWV service center was doing an outstanding job at servicing vehicles and installing AOA – the employees there worked tirelessly to support soldiers and their equipment. CECOM's Firefinder repair van was an outstanding example of positioning depot capability forward; this equipment, coupled with the skills and dedication of the LARs and depot personnel, was making great contributions to maintaining theater radar readiness.

The Corps Distribution Center, operated by the COSCOM, had no fixed RF ID interrogators. They also had no tagging capability, although some tag burners were inbound. The PEO-EIS controls RF interrogators, and the Service Component in theater sets policy in regards to use of RF tags and the level of detail that goes on them. For these and other reasons, the Theater has operated a Distribution Center in Iraq for almost a year with no fixed RF ID interrogation capability and no ability to RF tag retrograde supplies. This was one more example

for the need to centralize certain logistics actions under a single logistics command that could both enact and enforce logistics policy.

Germany

U.S. European Command (EUCOM)

GEN Kern's meeting with the EUCOM J4 (Maj Gen La Fountaine) and his staff focused on the challenges EUCOM faced in managing theater distribution. EUCOM has expanded the use of the 21st TSC's Theater Distribution Center (TDC) in handling all cargo in-bound to Europe (where previously the TDC handled mostly Army cargo). This move freed up the aerial port squadron staff to focus on expediting onward movement of CENTCOM-bound cargo and was showing very positive results in achieving rapid delivery of cargo to EUCOM units. The J4 staff also discussed the policy gaps that exist between the Joint Staff, DOD, and the Services, which lead to funding gaps at service and combatant command levels. These gaps contribute to the lack of RF tag read and write capability observed at LSA ANACONDA.

U.S. Army – Europe (USAREUR)

GEN Kern's first stop in Heidelberg was to visit the offices of SAP, the German firm that writes the software that AMC is using for the Logistics Modernization Program (LMP). The SAP leadership appeared to be unaware that implementation of LMP was behind schedule. GEN Kern listed the major concerns with the fielding: a lack of SAP technical support on site; two different sets of codes within the SAP program; an inability to link the contracting application with the acquisition side; the delay in stabilizing the initial LMP fielding at CECOM & Tobyhanna Depot; and a sensing that SAP does not yet grasp the size of the challenge the Army presented to them. SAP responded positively to the concerns; they appeared to want the fielding to succeed, both for its own sake and for their future business initiatives in the defense community. They were currently fielding a "Contract Creation" module to DLA, which GEN Kern wanted to ensure is synched with AMC future fielding requirements. GEN Kern recommended that they visit LSA ANACONDA, so that they can gain an appreciation for the level of effort involved in supporting field operations. He also stressed the fact that AMC could not proceed with further fielding until it succeeded in stabilizing the current LMP fielding, and correcting the 1,000 + trouble tickets currently existing. SAP made the following commitments:

(1) They would send additional technical experts to assist in stabilizing the LMP fielding.

(2) They would review their fielding within DLA to ensure that DLA and AMC systems could operate together, and that there was not needless duplication of effort between the two commands.

(3) They would join AMC in an effort to blueprint a holistic, "big picture" solution for LMP. This would include integrating legacy systems into the LMP.

DLA Distribution Center

The next visit was to the DLA Distribution Center at Germersheim. AMC had a New Equipment Fielding Team here. In addition to fielding new equipment, the team performs

special maintenance projects. During GEN Kern's visit they were installing three-point seat belt systems on HMMWVs for USAREUR. They also assisted the National Guard Bureau in collecting vehicles from the Defense Reutilization Management Offices, which the Guard then rebuilds at CONUS sites for later issue to units that are short equipment.

GEN Kern also visited the Stryker European Distribution Center (EDC) at Germersheim. The mission of the Stryker EDC is to receive unserviceable repairable parts from the Forward Repair Activity (FRA) and forward them on to the appropriate Original Equipment Manufacturer (OEM) for repair and then return to the EDC. Locating this facility in Germany makes sense, as it can use Ramstein Air Base as a trans-shipment hub for moving parts into and out of Iraq. Also, approximately twenty different Stryker parts suppliers are resident in Europe, so access to these suppliers is eased by the location in Europe. This operation works well for supporting a single Stryker brigade deployed in Iraq, but the Army needs to transition to a long term solution that uses existing Army supply channels as more Stryker Brigades enter the force.

HMMWV Service Center Forward Repair Activity (FRA) Balad

CJTF-7 and CFLCC requested AMC explore the feasibility of establishing HSC(s) in Iraq at Log Base Anaconda as soon as possible.

TACOM established a HMMWV Service Center at Camp Anaconda complex. It established the HSC with limited capabilities on 19 Oct 03 using 10 FRA depot technicians already in theater. It has since grown to 36 personnel of which most are Focused Sustainment contractors. Shortly after the HSC was established, the name was changed from HMMWV Service Center to HMMWV Support Center based upon the type work that actually required to be performed. The mission of the HMMWV Service Center (HSC) is to rapidly service theater HMMWV assets in order to sustain readiness. Their average workload is 40 vehicles daily. The HSC primarily performs services and limited organization and DS tasks.

The HSC provides three types of services:

(1) Conduct limited services/repairs (20 point inspection) such as lube, oil, and filter changes.
(2) Repairs such as replace tires, glass, suspension parts, wheel alignments, brakes, and radiators.
(3) Extensive troubleshooting to engines and transmissions to determine requirements for replacement or retrograde.

Float vehicles (30-40) are on hand to issue to customer units to replace vehicles required to be retrograded to Kuwait for higher level of repair. During the first six months, they serviced 2,600 HMMWVs and installed 1,128 sets of Add-On Armor.

In January 2004, the first Mobile Tire Service Center (MTSC) procured by TACOM was shipped to the HSC at Balad. The MTSC provides a great complement to the HSC's support to the units in the CJTF-7 AOR.

Rapid Manufacturing System (RMS) Component of Mobile Parts Hospital (MPH)

POINTS:

- MPH is a self contained, self-sustaining, C-130 transportable mobile mini-manufacturing system of systems that can efficiently fabricate standard and unique parts at or near the point of need. Provides the war fighter with a source for simple but essential parts that are obsolete or not readily available through the supply system.

- The MPH consists of three major components; Rapid Manufacturing Systems (RMS), Communications & Control Center (C&CC), and Agile Manufacturing Cell (AMC).

- The Rapid Manufacturing Systems (RMS) cell deployed and arrived in Kuwait on 4 Oct 03 with three personnel (2-machinist, 1-engineer).
    - Forward support
    - State-of-the- Art Traditional Mfg
    - Reverse Engineering Station
    - Army Strategic Planning Board provided $4.2M OMA to cover 12 months RMS operations in theater for deployment/redeployment, three contract operators, and raw materials.

- MPH is at the end of the Phase II – (Demonstration of 1st Prototype) of 4 Phases FY06-08 (Initial Production).

- RMS current capacity, what they can do today
    - Non-complex
    - Ferrous and nonferrous materials
    - Parts – not large assemblies
    - Deployed RMS limited to part size one cubic foot or smaller

- RMS in Kuwait has received approximately 227 work orders and produced 3,388 piece parts during period 25 Jan – 5 May 2004.

- Agile Manufacturing Cell (AMC) provides the reach back support
    - Received approximately 70 pass back work orders from Kuwait.
    - Produced 910 piece parts during the period 25 Jan – 5 May 2004.

STRYKER European Distribution Center (EDC)

The Stryker European Distribution Center has been established and is operational at the U.S. Army Depot in Germersheim, Germany.

The mission of the Stryker EDC is to receive unserviceable repairable parts from the Forward Repair Activity (FRA) and forwards them on to the appropriate Original Equipment Manufacturer (OEM) for repair and then return to the EDC. Many of the manufacturers of Stryker components are located throughout Europe, specifically England, Norway, Germany, and

Switzerland. The close proximity of the EDC to the component manufacturers will shorten the repair and return time. The STRYKER EDC also maintains a stock of STRYKER specific Class IX repair parts to resupply the FRA, which is currently located in Balad, Iraq and Arifjan. The EDC also forwards non-stocked parts and supplies to the FRA.

The EDC is operated by a core of 2 Government (PM BCT), 5 Contractor (GDLS) and 5 Local National personnel. The facility is located on Germersheim Depot. Life support, communications support, and equipment support is provided by AMC Forward Europe.

The forward location of the EDC provides a rapid response to fulfill the needs of the deployed STRYKER elements. In light of ongoing SBCT deployment planning and current world events, the EDC will remain in a key position to provide support for future STRYKER missions.

(Annex 9 to Appendix A)
Visit to Southwest Asia Trip – 6-13 August 2004

Visit 1: Qatar (HQs CENTCOM; USAF War Reserve Materiel, Al Udeid Air Base; Combat Equipment Battalion – Qatar (CEB-QA)

Our first visit was to the Air Force's War Reserve Materiel (WRM) repair activity at Al Udeid. The USAF repairs and returns to stock war reserve materiel, such as Harvest Eagle and Harvest Falcon base camp support sets, at this facility. Al Udeid Air Base has emerged as the USAF's main base (but not the only one) for prepositioning supplies and equipment to support theater operations. Given the substantial investment the USAF has made in this facility, I want to experiment with having them attempt to RESET an Army Force Provider set, once a set is returned by the theater. This seems to be an area where joint logistics inter-operability can be expanded.

After visiting with the CENTCOM CG, I had an office call with the CENTCOM J4 (MG Mortensen). He stated that his biggest logistics issue is joint contracting – or the lack thereof. Right now there are too many agencies doing their own independent contracting (Dept of State, Corps of Engineers, USN SeaBees, the Services), which inevitably results in their competing against each other (and against KBR for skilled labor). MG Mortensen has identified several "lessons learned" since the start of OEF & OIF and I stressed that these need to be passed to CASCOM. A lack of LOGCAP involvement in future planning is a continuing weakness in our logistics efforts.

AMC (AFSC) will create a straw man LOGCAP plan, for CFLCC, for the next fiscal year, as a way to assist CFLCC in its planning requirements. I want a LOGCAP planning Task Order done for FY 05 and given to CENTCOM J4 to help them in their theater planning.

Next we visited the Combat Equipment Battalion - Qatar. They are performing a wide variety of support services for the theater, including repairing HMMWVs and M113s. The Theater Patriot Battalion RESET is on track to be completed at or earlier than the scheduled time. ITT, the maintenance contractor for CEB-QA, is implementing LEAN Six Sigma here and the employees are very positive about the results thus far.

Visit 2: Afghanistan (Kandahar Air Base and Bagram Air Base)

Kandahar AB is home to a variety of U.S. and allied units. An Army Reserve ammunition company is operating a multi-service and multi-national Ammunition Supply Point (ASP) on the opposite side of the runway from the living areas. In addition to the ASP, I visited the cargo distribution yard and also had lunch with the AMC Logistics Assistance Team and the Support Battalion Commander. They have several ammunition-related issues. The first and most critical is safety related: The ASP is right beside the airfield, so a waiver is required for both flight operations and living/working operations on the opposite side of the airfield. A planned extension of the runway will exacerbate the problem. The ASP must be moved – and the Team on site is examining courses of action to accomplish this.

Accounting for different services' ammunition is a challenge. The ASP maintains separate accountability records of each service's ammunition, plus separate training stockpiles. This issue emerged when a recently departed MEU left a large quantity of aviation ammunition behind – which they did not turn over to the Army for Army use. The ASP must separately store and account for each U.S. services' ammunition stockpiles, plus coalition members' ammo. A better solution for the forward-deployed force would be to maintain one pile of ammunition and let the accounting and financial transactions be dealt with at the wholesale level.

I want a relook of the MTOE of deployable ordnance ammunition companies to ensure that their MTOEs still contain essential support equipment, such as the bulldozer and the tractor/trailer combination to move it. After talking to the ammunition company at Kandahar I'm not certain that our MTOEs contain the right mix of equipment.

While at Kandahar we visited the Aviation hangar and observed phase maintenance on aircraft. I spoke to soldiers from the 25ID AVIM and F Co, 131 AVN (a National Guard CH-47 unit) about their major issues and they reported that, in addition to loss of ITV when aviation parts reach Dover AFB, their AOG parts sit on the ground there, sometimes for days. Dust and sand damage to aircraft is a major challenge and these units recommended that aircraft not be left in this theater for more than a year for this reason.

Lack of In-Transit Visibility of aviation parts (AOG or otherwise) that do not receive priority at CONUS APOEs such as Dover, must be fixed. Action is to confirm or deny this perception and make necessary fixes. LOGSA has, or should have, a representative on the ground there that can assist the Afghanistan units with expediting their AOG shipments.

Our final brief at Kandahar was given by the a platoon of 453d Cargo Transfer Co, a USAR unit operating the Arrival/Departure Airfield Control Group (A/DACG) at Kandahar. This unit handles anywhere from 40 to 200 cargo containers daily, delivered for the most part by hired Pakistani "jingle" trucks. They are using the new Kalmar Rough Terrain Container Handler (RTCH) successfully, which they attribute to the training they received before they deployed. One of their NCOs attended training at the manufacturer's facility, and now functions as the unit's master driver for this vehicle. Since almost all cargo for CJTF-76 units is containerized, the RTCH's importance – and the importance of proper operator training – cannot be overemphasized.

Our next visit was to Bagram Air Base, home of the Combined/Joint Task Force 76 HQs (the core of this HQs is the 25th Infantry Division). We started with a command brief given by MG Olson, CG of the 25th ID, with both Asst Div Cdrs (BGs Jacoby & Champoux) participating. MG Olson identified a variety of issues they are grappling with, all key to winning what he described as a "classic counterinsurgency" campaign. The enemy in Afghanistan is attacking American soldiers now almost exclusively with mines, IEDs, and indirect fire. Electronic counter-measure (ECM) devices are effective against IEDs, but both training and on-site maintenance (exclusively contracted) require improvement. The 25th is developing new tactics and techniques to combat ECM devices, and will export this program once it is complete. Enemy rocket and mortar attacks cannot easily be detected. I described the depot overhaul program we are undertaking for the detection equipment and the 25th welcomed that assistance.

MG Olson also discussed the Operational Needs Statement (ONS) that they've submitted to CFLCC, for an additional 221 Add-On Armor (AOA) kitted HMMWVs.

I discussed the Division's conversion requirements upon their redeployment and encouraged them to push all of the equipment they left at home station into a RESET program, either at depot or at a local facility. I also reminded them to ship depot repair candidate equipment straight from theater into depots, instead of shipping it to home station first.

25ID needs to be better supported by the FRAs in Kuwait – there did not appear to be much knowledge or many attempts by the Division to use the facilities in Kuwait for support and/or assistance. Communication must be opened so that Division requirements can be acted on and supported from our facilities in Kuwait and Qatar.

I next visited Bagram's detention facility to compare activities there with findings from the investigation I supervised. Since BG Jacoby is conducting a separate investigation of detention operations in Afghanistan, I can only comment that notable differences exist, even today, between Iraq and Afghanistan in the techniques and procedures we use.

We next visited with Combined Task Force Coyote, the mine-clearing task force at Bagram AB. This unit is an engineer task force that is built around the 367th ENG BN (Minnesota National Guard), with several specialized units attached. CTF Coyote is equipped with a wide variety of non-standard mine-clearing equipment, as well as standard equipment normally issued to U.S. Engineers. (A detailed brief on this unit's equipment and capabilities is available in the Staff Group). CTF Coyote is clearing large swaths of land in and around Bagram Air Base using dozers, plows, sniffer dogs, flails, vehicle mounted sonar systems, and manual minesweepers operated by their soldiers. They reported that the earphones for the newest minesweeper, the AN/PSS-14, are very uncomfortable, especially for long periods of use. Also, the connecting wire is too short - it pulls the earphones out of the operator's head.

Tasked to CECOM, ICW RDECOM and the PM; Investigate this situation, and if substantiated, develop a fix for both the headphones and the connecting wire (S: 24 Sept).

Our last visits in Afghanistan included tours of the logistics activities supporting the CJTF: the Class III point, the water purification and storage point, and the warehouse complexes holding the Class I, II, and IX operations. These are being operated by the 725th Main Support Battalion with a substantial contingent of KBR contract workers (including at least one Bosnian). They are grappling with a lack of in-transit visibility, frequently caused by tags that are either missing, or which have had their batteries stolen somewhere in Pakistan (almost all cargo is now coming overland from a port in Pakistan). They are also receiving more containers than they can retrograde, which is creating a storage problem for them. A new West Point graduate there, in responding to my question about things she wished she had learned prior to her deployment, indicated that (among other things) she wished she had received some training on dealing with contractor personnel (who are there in lieu of her platoon).

Visit 3: Kuwait (Camps Doha and Arifjan, and the Kuwait Naval Base)

Our initial visit in Kuwait started at the heli-pad at Camp Arifjan, where the 1107th AVCRAD gave me a tour of their very impressive maintenance facility. They are performing a wide variety of tasks and are contributing measurably to improved aviation readiness in theater.

At the blade repair shop, they are using a couple of different techniques to repair worn blades. I asked if they were keeping statistics on the effectiveness of the various treatments they are using; they are not.

My next session was a roundtable discussion with the senior Kellog, Brown, & Root staff in theater, also attended by BG Radin. Mr Tom Crum, KBR's Chief Operating Officer for the Middle East Region, led the discussion. KBR pressed for moving the PCO into theater, to facilitate overall operations. I in turn pressed them to finish definitizing open Task Orders. We agreed that better communication between theater leaders on both the Army side and the KBR side is needed; a "senior manager's conference" was proposed, plus KBR admitted to a need to share their lessons learned with the Army. KBR plans to request that an additional period of leave for their employees be added to the contract, to assist in retention. BG Radin pointed out that customer perceptions of inadequate KBR work forces won't be eased by granting additional leave. On the plus side, KBR LNOs with units have been extremely beneficial, and BG Radin wants this to continue, but he has identified a recurring problem with the DCAA attempting to disallow the costs for the LNOs.

I remain concerned about the large number of changes we see in Task Orders, which adversely impact on our ability to definitize the TOs. I want to have a Case Study analysis performed on one of our large Task Orders, to determine if we can execute this process more smoothly up front, without needing to submit numerous changes later.

A recurring issue that has appeared anecdotally in the press and with informal discussions with AMC employees concerns equipment buy vs. lease costs. In Afghanistan our LSE at Kandahar uses only Gators for mobility; according to them, an enclosed truck with an air conditioner would cost the same. In other cases KBR is leasing trucks that could (perhaps) be purchased for less cost. We need to do cost comparisons, especially where equipment is being leased, to determine in buying is the better option.

A briefing by the CDDOC followed. The CDDOC now faces a manning challenge, as they are grappling with the issues of filling a Joint TOE and synchronizing differing service policies for deployment tour lengths. I challenged them to solve the theater's container management challenge – policies and procedures are needed to mitigate our end-to-end receipt, movement, handling, and storage problem. They are working it; I suggested that they should visit with or contract with a commercial firm that handles large numbers of containers, to determine if we can learn lessons from their experience.

The CDDOC reported that visibility of retrograde containers is lost as the SDDC accepts retrograde containers for shipment; for some reason the SDDC element assigns a new TCN to

these retrograde containers, which causes the original TCN to disappear from GTN. This in-theater disconnect must be fixed.

I want to query commercial firms (example would be Maersk) on how they manage containers - do they have a method or system we could use or emulate?

A briefing from the Equipment Support Activity – Iraq (ESA-IZ) was the next agenda item. This organization will have an initial operating capability by 31 Oct and its mission will be to establish property book accountability of Stay-Behind Equipment (SBE) in Iraq. This unit will consist primarily of ten property book teams that will co-locate with existing organizational and unit PBOs. During upcoming Reliefs in Place the ESA-IZ teams will document all SBE as well as equipment identified for theater Army unit sets, and the Motorized Units of Action planned for SWA.

ESA-IZ Property Book Teams must be adequately manned prior to assumption of the mission in Nov (IOC is 31 Oct). Also, the ESA-IZ has a 14.5 million UFR.

I want to know the plan for management of Government Furnished Equipment (GFE) turned over to KBR. Action required is a fact sheet or point paper describing how this mission is/will be accomplished.

The final event of our first day in Kuwait was a tour of the GSIE FRA in Camp Arifjan. This facility continues to improve, and I was gratified to note that the Mobile Parts Hospital is continuing to be heavily used, to include by the AVCRAD. The biggest issue that emerged here is that they do not have Add-On Armor (AOA) kits on hand, and the information available to BG Radin suggests that the funded production runs are almost complete. Demands are still out there in Iraq and in Afghanistan (CJTF-76 has submitted an ONS to CFLCC for 221 AOA kits). A complicating factor in equipping vehicles with AOA was vividly demonstrated for me when the FRA showed me three crates containing HMMWV air conditioning equipment, one crate for the ballistic glass, and one crate for the AOA. All of these crates come from three different funded programs, and from three different shippers, and all have to arrive simultaneously to completely outfit one vehicle. To do this four workers spend 12+ hours installing these various components.

Add on Armor funding must continue so that our crews remain employed and theater needs are met.

Our second day in Kuwait began with a briefing at Camp Doha, by the contractor (CSA) operating the industrial and maintenance facilities there. This organization is repairing and rehabilitating excess cargo trucks (2 ½ and 5 ton) for the Iraqi Army. Other missions they execute include maintaining a heavy brigade's (+) equipment for the APS program; supporting live fire training and RSOI for units deploying to Iraq; providing logistical support to the population at Camp Doha; and executing the Force Protection mission there. BG Radin is examining the utility of using their capabilities at Camp Doha to support the periodic refurbishment of the Up-Armored HMMWV fleet in Iraq.

I want a maintenance and sustainment plan to address the equipment being transferred to the New Iraqi Army. Currently no adequate plan exists. I confirmed this in my meeting in Baghdad with LTG Petraeus, who is directing the training and equipping mission for the Iraqi Army.

We next visited the Theater Distribution Center (TDC), located just outside of Camp Doha. This is a true success story - now - and we need to capture the lessons learned from this operation at CASCOM. Details such as the quantities of MHE required, number of workers, site layout, traffic patterns, locations of RF interrogators, operation of the HAZMAT yard: all of these need to be documented for the next operation when we will have to set up another TDC in a remote location.

We next had quick visits to the Retrograde yard at Camp Arifjan, the new CECOM Generator repair activity, and the "K" Line at the Arifjan ASP. The Retrograde yard is performing at a very high level now – it is organized, disposal contracts are in place and working, and most importantly, priority depot reparable items are being identified and shipped back to CONUS in a timely manner. The CECOM generator repair activity is a new operation and BG Radin is working a property accountability issue to draw seed repair generators from APS stocks, so that units who turn in generators for repair will be able to immediately draw an operational generator. At the ASP, I remain frustrated by our use of wooden boxes to crate the metal ammo cans for recovered small arms ammunition. I want progress in redesigning ammo packaging to reduce the weight and cube and ease handling at the user end. We have redesigned tank ammunition packaging to use metal frames and banding to reduce weight; we must do the same with other types of ammunition. (Picatinniny Arsenal's ARDEC was previously scheduled to brief GEN Kern on ammo packaging initiatives in late August).

We next visited the Combat Equipment Battalion – Kuwait (CEB-KU) and received an update on their many missions. The only issue of note concerned work on the reception, repair, upgrades and issue of Up-Armored HMMWVs. They reported that they contracted for work on Up-Armored HMMWVs with Stewart & Stevenson, because TACOM cost too much: TACOM offered to provide 14 mechanics for $700,000, far more than what Stewart & Stevenson offered.

Our final visit of the day took us to the Kuwait Naval Base, where we toured the equipment storage and preservation activity for the Army Watercraft fleet that is being Prepositioned here. We followed that with a tour of the experimental High Speed Vessel (HSV) Spearhead. The storage activity is progressing well but I am concerned with the amount of time it will take them to activate watercraft for service, after receiving orders to do so. The Spearhead, which is an Army Advanced Concepts Technology Demonstration (ACTD) at present, doesn't appear to have an independent, systematic data collection program over watching this vessel's use, nor does there seem to be great linkage between this vessel's capabilities and Army training and operational requirements.

ITT briefed that they have implemented LEAN Six Sigma at the retrograde yard and that it is paying dividends. I "encouraged" the maintenance activity for the watercraft at Kuwait Naval Base to implement LEAN as well, after they briefed me that it would take 10 days to bring a boat to serviceability.

Although TRADOC is conducting some data collection and analysis on the HSV, I want to assist in improving this effort.

Visit 4: Iraq (Baghdad, 1st Infantry Division, and LSA ANACONDA)

My first stop in Iraq was to the Abu Ghraib prison complex, where we were briefed by MG Miller, the Deputy Commanding General of the Multi-National Forces Iraq (MNF-I). To operate the prison and conduct the interrogation mission MG Miller has tactical control over one MI and two MP BDEs. Logistics support is provided by a medical brigade and a garrison command. Prison operations are now supervised by a senior noncommissioned officer who is a corrections specialist by training. Among numerous changes in manning and policy, it is clear that improved resourcing has had a significant positive impact on operations here. It is also clear that proper operation of a facility such as this is resource intensive, especially for the interrogation effort, and an influx of a large number of detainees would clearly create strains on the guard/interrogation force.

The next briefing was given by the LOGCAP Support Unit in Baghdad, currently commanded by LTC Leong. Their primary effort right now is to separate large task orders, such as TO #59, into more manageable pieces that conform to Division or similar large unit areas of responsibility. I instructed LTC Leong to prepare his FY '05 support plan now and get it out for review by his customers. I also directed him to provide feedback on the training he received prior to deploying; specifically, I want him to comment on/correct the POI to account for reality on the ground. LTC Leong is working this. My final comment on this brief was that standardized SOWs need to get out of staffing at AFSC & KBR (KBR is trying to do ROMs for these) and get to theater for staffing w/CFLCC, CENTCOM, Multi-National Corps – Iraq (MNC-I), and the units.

LTC Leong, Commander of the LOGCAP Support Unit in Baghdad, must analyze the training he received prior to deployment and to "rewrite the POI" to accommodate realities on the ground.

The next briefing was given by LTC Dornblaser, commanding the team that is accounting for, storing, issuing, and destroying Captured Enemy Ammunition (CEA). This massive operation is progressing well, with most enemy storage sites now being secured and with contractors on the ground carrying out the destruction of excess ammunition. Captured enemy small arms ammunition is being issued to Iraqi Army units, albeit through a fairly cumbersome process, so I instructed LTC Dornblaser to meet with LTG Petraeus to identify ways to streamline the process. A point of interest from this brief were the results of improper demolition of ammunition stocks; improperly trained units inadvertently created both hazards from unexploded ordnance, plus sources of IED supplies for the enemy, when they attempted to destroy large caches of CEA.

My meeting with LTG Petraeus, Commander of the Coalition Military Assistance and Training Team (CMATT) for Iraq, revealed that he has several outstanding logistics issues supporting the emerging Iraqi Army. The major problem is that the current design of the force does not include any logisticians of any kind, just shooters. We had a lengthy discussion on the

trucks (2 1/2 ton & 5 ton) that AMC SWA is refurbishing and sending to the Iraqi Army. Right now only trucks: no parts, no PLLs or ASL, and no maintainers - are being sent. LTG Petraeus needs Arabic manuals, and a new maintenance contract that will include a sunset clause dependent on the contractor training Iraqis and handing off the maintenance mission to them. (The current maintenance contract is awarded to a non-Iraqi company, so no maintenance training or local employment is occurring). LTG Petraeus wants to shift his requirements to local contracting (i.e., unit contracting officers procuring services from local sources) rather than having to run everything through the higher HQs. (Previously all contracting went thru the CPA). This will likely require additional sourcing of contracting officers to the CMATT mission.

I want to get manuals for U.S. equipment printed in Arabic and delivered to CMATT to assist them in maintaining the equipment we're issuing to them (M35 & 800-series cargo trucks).

I next met with the C4 for MNF-I, MG Minetti, and he expressed a similar desire to greatly expand the use of local sources for contracted services. (They are looking at trucking initially). They want to incentivize current contractors to work themselves out of a job so that local Iraqi companies execute the work. He also briefed on the Class I Prime Vendor contract, which is using 2,000 trucks to deliver rations to the various dining facilities and ration break points in Iraq. The C4's analysts believe this number of trucks is insufficient, and my subsequent visits to Balad and 1ID confirmed that, as these trucks are often being used as temporary storage units once they arrive at a site. Timely arrival is a problem too, due to the enemy threat and also the unpredictability of the contractor and the drivers. Truck deliveries are still required, as the Iraqi rail lines are still frequently interdicted by the insurgents.

The Field Assistance in Science & Technology (FAST) OIC, MAJ Varnadore (out of the Army Research Lab) next briefed me on their efforts to identify technology issues in the field and pass them to the laboratories. They have identified a wide variety of capabilities gaps and/or issues in the field and have passed these back through the RDECOM chain of command for action. Key technology projects underway right now as a result of their efforts include engine inlet covers for UH-60 engines, wing solar shields for UAVs, improved mortar detection capabilities, and a reliable power source using solar energy.

I want the FAST team in Iraq linked to the Soldier Nano-Technology Center (POC: LTC Dean) - the Nano-Tech center is working on a solar energy blanket that can possibly meet some of the "reliable power" challenges the FAST team is grappling with.

I want FAST teams to link up with OIF 3 major units (such as 3ID & 42d ID) now, before they deploy.

I next received a brief from the Robotics System Joint Program Office, given by CPT Kadlec, the "Support Operations Officer" of the 63d Ordnance Battalion (EOD). EOD battalions are not authorized a Support Operations Section, so this unit has created a position out of hide to handle the logistics challenges associated with the fielding and supporting of the robot force. Notwithstanding that, EOD robots are a huge success story in saving soldier's lives by allowing remote render-safe and detonation of IEDs. The Joint Program Office has recently decided, after

extensive field testing in both Iraq and Afghanistan, to select two robots (Packbot & Talon) from the field of five that are currently in the field. The fielding goal is to equip every EOD team (all services) with two robots. Currently maintenance of these systems is performed by ManTech.

LTC Young of the Rapid Equipping Force (REF) next briefed me on the status of the work they are performing in theater. The REF is working a wide variety of issues, from the strategic level (Biometrics) to the tactical. I stressed that they must continue their efforts to break through bureaucratic barriers when pursuing solutions to problems identified in the field, and I also emphasized the need to include a maintenance solution in the fielding plans they execute. They asked me when AMC would begin supervising and over watching the maintenance of all Commercial Off The Shelf Equipment (COTS) currently in theater. I need an answer to this question.

The next day included visits to the 1st Infantry Division Rear CP and to the 13th COSCOM and LSA ANACONDA. We started with a logistics brief on the helicopter ride from Baghdad to the 1st Infantry Division Rear CP, given by BG Mundt, the Division's ADC-S. The 1ID identified concerns with the Unit of Action design for logistics, based on their experiences in operating in a non-contiguous battle space in Iraq; with battlefield circulation control; with the Customer Wait Time (28 days) they face; and with a lack of qualified supervisors in the LOGCAP contractors supporting their camps. They echoed the desire to increase the amount of local contracting, previously expressed by LTG Petraeus and MG Minetti, but are concerned that they are not adequately resourced to execute this mission.

I next received a command briefing from MG Batiste, CG of the 1ID and its attached units (collectively called Task Force Danger). TF Danger had lost 68 soldiers killed as of 12 Aug; they have enemy contact daily, in every form from IEDs to full-fledged fire fights. They have renamed their logistical resupply convoys "Combat Logistics Patrols" to emphasize the offensive nature of these missions. Despite the extensive enemy action they face, the Division is actively working to develop local government bodies, and to support the fixing and improving of local infrastructure. Steady funding of this effort is a necessity but the nature of how the war is being funded (via supplementals) causes gaps and delays in availability of funds. MG Batiste has two major concerns. First, he is worried that the large amount of stay-behind equipment the Division will leave in Iraq will affect their readiness during RESET. Second, the equipping and training of their replacement Division (42d Infantry Division), while it's receiving a lot of attention, is a monumental effort and will require commitment of some 1ID resources. No taskers for AMC here, but redistribution of equipment to support RESET, Modularity transitions, and the war effort continue to be huge challenge for the Army. AMC must continue to maximize its contributions and improve its performance, in every area, to support this effort.

We concluded our visit to the 1ID by touring their Main Support Battalion's Stock Control section, the TMDE detachment, the Fuel & Electric (Repair) shop, and a display of their own armored solutions for cargo trucks. I was gratified to hear that our AMC soldiers and LARs are very highly regarded within the Division and are doing an outstanding job supporting all requirements.

After our visit with 1ID we flew via UH60 to LSA ANACONDA. The flight was conducted at high speed and close to the ground, which the Division identified as one of the best defensive tactics against enemy attack. Our first briefing at ANACONDA was given by the Commander of the 7th Transportation Battalion (LTC Aiken). This battalion, which is based at Ft Bragg, is now a "joint" organization: in addition to Army National Guard and Army Reserve units, it contains two USAF truck companies and a USN Fuel Detachment. The battalion has completely converted two of its truck companies to gun truck configurations, as the battalion is responsible for security during convoys. In addition to armor kits that are being supplied through normal channels, they are cutting and welding armor to protect their vehicles and to build gun turrets and gun shields (similar to virtually all other units in Iraq). They have submitted an Operational Needs Statement (ONS) to acquire the Armored Security Vehicle (ASV), which currently is fielded only to Military Police units. They are also employing other active and passive measures to secure their convoys, which amount on average to 300 trucks and 15 separate convoys per day.

After quick tours of the AMC LSE HQs, the new Small Arms Repair Facility, and the HMMWV Service Center, the 13th COSCOM (BG Chambers) provided a briefing on the Command and Control procedures they use to defend their assets, especially the convoys and other activities that are outside the fence line of the LSA. They are using the Joint Deployment Logistics Module (JDLM) as the integrating software to tie together various data feeds. JDLM allows them to portray, in near real-time, an updated Logistics Common Operating Picture (LCOP). This system has proven to be very effective in controlling their convoys, as they have successfully reacted to, and rerouted, convoys as information about downed bridges and enemy ambushes has been reported. BG Chambers reports that JDLM will become the backbone of the emerging Battle Command Service Support System (BCS3). 13th COSCOM reports that units under its command have incurred over 300 casualties, including 22 killed, since the 13th arrived in country.

Visit 5: Europe (21st Theater Support Command & HQs, USAREUR)

Our first stop upon arriving in Germany was at the HQs of the General Support Center – Europe (GSCE), a subordinate command of the 21st TSC. Mr Haufe, General Manager of GSCE, along with the 21st TSC Support Operations office, briefed us on their RESET support mission and followed that with a tour of the repair shop. There we viewed both vehicles in RESET as well as vehicles that are being refurbished under USAREUR's Theater Fleet Refurbishment Program (TFRP), a theater-funded effort to return unit-owned equipment to a zero hours and zero miles standard. All RESET shops in Europe (GSCE, DS units, installations, Combat Equipment Group – Europe sites, and contractors) are extremely busy RESETting 1st Armored Division and V Corps equipment. I told them to get 1ID's stay behind equipment into their shops as quickly as possible, while the 1ID is deployed, to get an early start on the RESET of this unit. They are working that, but since they are still receiving redeploying 1AD equipment, they have to focus on that mission first.

We received our next brief the following morning at HQs USAREUR, where the Deputy Commanding General (LTG Ward) and the staff provided an update on the progress of RESETting the force in Europe. They are also focused on providing a substantial force package

to both OIF 3 and OEF 6, which has generated a requirement for an additional 1,400 pieces of equipment to completely outfit all of their units. This information requirement led to a discussion of the need for an accurate listing of the SBE that is available for units to draw in both Iraq and Afghanistan. LTG Boutelle remarked that, unfortunately, the new property book system coming into use is NOT programmed to be part of the Global Combat Service Support System – Army. The USAREUR G4 briefed three issues they want AMC assistance on:

- ATACMS Repair Facility. They asked U.S. to not close this, at least for now, as their RESET requirements are high. They feel that support from Letterkenney Depot will be too slow and unresponsive to their needs.

- Parkerization Facility. USAREUR has asked TACOM for Special Repair Authority (SRA) to establish a Parkerization capability at the Small Arms repair facility at Mannheim. (At the encouragement of the LTG Jones, they will look at the feasibility of making this capability mobile).

- ROWPU Repair. USAREUR requested that AMC provide expedited parts support plus a technical expert for 90 days to assist them in the RESET of fifteen 3K ROWPUs.

The final event of this trip was a secure video tele-conference brief, given by myself, LTG Jones, and MG Fay, to the Secretary of Defense on the results of our investigation into the abuses at the Abu Ghraib prison. All told, during this trip we briefed the SECDEF, the CG CENTCOM, the CG MNF-I, the ARCENT/CFLCC CG, the CJTF 76 CG, and the MNF-I staffs on this investigation.

Appendix B
Deputy Chief of Staff, G-4 (LTG Christianson's) Logistics Focus Areas

Shortly after the completion of major combat operations in Iraq it became apparent to most of DOD that significant areas of our current logistics systems performed very poorly in support of deployed forces. 3d Infantry Division AARs, lessons learned from tactical, theater, and national-level logistics units, as well as a General Accounting Office (GAO) investigation in the effectiveness of logistics operations during Operation Iraqi Freedom showed that DOD and Army logistics organizations, doctrine, policies, and associated enablers struggled to keep pace with the 21st Century battlefield seen in Iraq. U.S. Army logistics successes during OIF were largely a result of the initiative and hard work of the individual logistics soldiers, civilians, and contractors who developed innovative solutions to overcome logistics system breakdowns. LTG Claude Christianson, former (CFLCC) C-4 and Department of the Army Deputy Chief of Staff, G4, saw most of these logistics failures first hand. Working with the U.S. Army Materiel Command and the U.S. Army Combined Arms Support Command (CASCOM), he led the charge within the U.S. Army to identify the root cause of this poor logistics performance and to develop corrective actions.

In December 2003 the Deputy Chief of Staff, G4 published an Army logistics white paper entitled "Delivering Materiel Readiness to the Army." This white paper identifies four interdependent "focus areas" to be fixed in order to overcome the logistics failures of OIF and support the Army's transition to an expeditionary force. These focus areas are:

Connecting Logisticians. Today's Army Logistician cannot see the requirements on the battlefield, and customers cannot see the support that is coming their way. As a result, support is pushed based on estimates of needs. Supported forces order the same item several times because they have no confidence support is on the way. The Army's plan to solve this problem is to connect Army Logisticians by providing dedicated satellite communications equipment. Logisticians will be an integral part of the joint battlefield network with satellite-based communications that provide 24/7 connectivity on demand, enabling them to pass and to receive key data from the battlefield to the industrial base.

Modernizing Theater Distribution. Today's Army is not able to respond rapidly and precisely when support requirements are identified. The Army does not have the battlefield distribution system that is needed. The Army must have a distribution system that reaches from the Soldier at the tip of the spear to the source of support, wherever that may be. The Army must build warfighter confidence by increasing visibility of both supplies and movement assets, and establishing flexible, responsive distribution capabilities. This will be accomplished by adding modernized transportation assets, re-designing some C2 and management functions, establishing a distribution web-based architecture, and most importantly, by providing connectivity to logisticians at all levels.

Improving Force Reception. The Army is hamstrung by the lack of an organizational construct that focuses on joint theater opening tasks. Today, we build ad hoc support organizations to execute aerial and sea port of debarkation operations, and we depend on forces from several

organizations to establish the theater sustainment base. This process takes too much time and will not support an expeditionary structure that is capable of rapidly deploying joint capable force modules. In order to effectively facilitate the immediate operational employment and sustainment of expeditionary forces, the Army and the joint community must design a theater-opening capability that can respond on extremely short notice and can execute critical sustainment tasks immediately upon entry. This theater-opening capability cannot be an ad hoc organization. Critical operational tasks for this organization will include: (1) providing operational sustainment command and control with reach-back capability and initial network visibility; (2) conducting theater reception, staging, onward-movement and integration operations, to include life support, force protection and port of debarkation operations; and (3) sustaining forces in theater with theater distribution and requirements visibility.

Integrating the Supply Chain. Since the end of the Cold War, the Army has executed supply reductions at many levels. We changed Army policy to reduce the amount of items carried on unit prescribed load listings while simultaneously reducing stock levels in many authorized stockage lists across the field army. Additionally, Army leaders took risks at the strategic level by under funding strategic spares programs. The cumulative result of these reductions is a LEAN supply chain without the benefit of either an improved distribution system or an enhanced information system. As a result, Soldiers are at the end of a long line of communication with reduced inventories and an old distribution system.

To correct this situation the Army and DOD must view the supply chain in a holistic manner, across all Services and DOD agencies, to ensure the impact of actions are understood across the entire chain, not just at a single level or within a single service. This joint, end-to-end view is essential to provide the kind of support Soldiers and Combatant Commanders deserve. Ultimately, joint information will be freely shared among strategic, operational and tactical level headquarters and agencies. Customers and logisticians from all agencies and services will enter local supporting systems, plug into the sustainment network, and be afforded end-to-end joint total asset visibility (JTAV). Successful Theater Distribution efforts will allow combatant commanders to see inventory in motion, as well as to see what is available at storage locations, and they will be able to rapidly and effectively execute decisions that meet their requirements.

The Army cannot transform without transforming logistics. GEN Kern's visits to the various theaters confirmed the accuracy of the G4's assessments and areas for immediate focus. Providing assured communications to logisticians at all levels is the key. AMC's Logistics Support Elements (LSE) achieved great success, out of proportion to their sheer numbers, because they deployed with a satellite-based communications system (MMCS) which allowed connectivity to the AMC-managed national supply base. If the Army does not succeed in implementing changes within the above four focus areas historians will study the same lessons learned after the next major conflict.

Appendix C
CENTCOM Deployment & Distribution Operations Center (C-DDOC)

Connecting Logisticians with the Fight: CENTCOM Deployment and Distribution Operations Center (CDDOC)

GEN Kern's travels to every theater, coupled with analysis of CONUS supply and transportation operations, confirmed theater commander's frustrations with the DOD distribution system. Shortfalls included a backlog of cargo pallets and shipping containers at various points along the distribution system; large demurrage charges against the Army by owners of backlogged containers; a discrepancy of $1.2 billion in material shipped versus material receipted by unit supply systems; accumulation of excess material without required documentation at the Theater Distribution Center; and duplication of requisitions and circumvention of the supply chain.

To overcome these challenges the Secretary of Defense designated the Commander, U.S. Transportation Command (TRANSCOM) as the overall supply distribution process manager. This designation became official in Sept 2003.

In late 2003, GEN Handy, the Commanding General of TRANSCOM, proposed the creation of a unit that would capture the capability of the various national-level DOD and service logistics organizations and deploy it into a theater of operations as a Deployment and Distribution Operations Center. This organization; The CENTCOM Deployment Distribution Operations Center (CDDOC) would link the strategic with the theater levels. Officials from TRANSCOM, CENTCOM, Joint Forces Command, Army Materiel Command, the Defense Logistics Agency and other military logistics agencies developed the concepts for how this organization would manage the shipping, receiving, and tracking of supplies. GEN Handy then scrutinized the concept with the Joint Staff, which then briefed Defense Secretary Rumsfeld, and service leaders. GEN Handy and GEN Kern then briefed GEN Abizaid on the concept and requested permission to deploy this proposed organization in support of CENTCOM operations. GEN Abizaid approved, and the CDDOC was formed 2 Jan 2004 and deployed to Kuwait on 16 Jan 2004.

The 63-person CDDOC focused on synchronizing and eliminating the gaps between the strategic and operational levels – mitigating bottlenecks at critical points and ensuring unimpeded throughput of forces, equipment, and sustainment cargo. Existing systems were merged into a Web-based network allowing CDDOC personnel to leverage the operational architecture, systems, and equipment used to execute the DOD's strategic logistics mission. Within days of 'boots-on-the-ground' in Kuwait, the collaborative reach back capabilities of the CDDOC allowed CENTCOM to capitalize on their ability to provide visibility and synchronization of the entire process, and make sound decisions in managing both the flow of supplies and also the rotation of forces between OIF 1 and OIF 2. After only three months of operations, the CDDOC has had an immediate impact or deployment and distribution operations. The CDDOC accelerated the 101st AA Div redeployment by three weeks, prevented the shipment from CONUS of over 1,700 containers of unneeded Class IV, and improved delivery of

critical materiel directly to forward units. The CDDOC has provided the Combatant Commander with a single point of contact that leverages the power of national systems to help the warfighter get logistical needs in a quicker and more efficient manner while saving taxpayers' dollars.

The CDDOC is a watershed in logistical innovation in that existing units, equipment, and systems were merged in a joint HQs to solve a complex challenge that appeared to be a single service (i.e., the Army) problem, but in reality was a joint problem of extreme magnitude.

Appendix D
About the Authors

Colonel Thomas J. Newman has served in a variety of Command and Staff positions in more than twenty-six years of service. At the time this history was written COL Newman served as the Director of GEN Kern's Staff Initiatives Group, HQs, U.S. Army Materiel Command. He is currently serving as the Deputy Chief of Staff for Army Materiel Command. COL Newman is a graduate of the U.S. Army Command and Staff College, the School of Advanced Military Studies, and the U.S. Army War College.

Lieutenant Colonel Juan Arcocha, an Army Aviation Logistics Officer, has over 20 years service in the United States Army. He received a Bachelor of Science from the United States Military Academy, West Point, in 1985, and a Masters in Science in International Relations from Troy State University in 1997. He is currently enrolled in the Advanced Strategic Art Program at the United States Army War College at Carlisle Barracks, PA.

This page intentionally left blank

ACRONYMS

A/DACG	Arrival/Departure Airfield Control Group
AAE	Army Acquisition Executive
AAR	After Action Review
	After Action Report
AAS	Ali Al Saleem
AB	Air Base
ACTD	Advanced Concepts Technology Demonstration
ADM	Admiral
AFSC	Army Field Support Command
AMC	Army Materiel Command
	Agile Manufacturing Cell
AMCOM	Aviation and Missile Command
AOA	Add-on-Armor
AOG	Aircraft on the Ground
AOR	Area of Responsibility
APOD	Aerial Port of Debarkation
APS	Army Prepositioned Stocks
ARCENT	U.S. Army Central Command
ARDEC	Armament Research, Development, and Engineering Center
ARF	Army Regional Flotilla
ASL	Authorized Stockage List
ASP	Ammunition Supply Point
ASV	Armored Security Vehicle
ATACMS	Army Tactical Missile Systems
AVCRAD	Aviation Classification and Repair Activity Depot
AVLB	Armored Vehicle Launched Bridge
BCS3	Battle Command Service Support System
BDE	Brigade
BFT	Blue Force Tracking
BMDS	Ballistic Missile Defense System
C&CC	Communications & Control Center
CASCOM	Combined Arms Support Command
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive Ordnance Command
CCSS	Commodity Command Standard System
CDDOC	CENTCOM Deployment and Distribution Operations Center
CEA	Captured Enemy Ammunition
CEB-KU	Combat Equipment Battalion-Kuwait
CEB-QA	Combat Equipment Battalion-Qatar
CECOM	Communications and Electronics Command
CENTCOM	U.S. Central Command
CFC	Combined Forces Command

CFLCC	Coalition Forces Land Component Command
CG	Commanding General
CILHI	Central Identification Laboratory - Hawaii
CLS	Contractor Logistics Support
CMA	Chemical Materials Agency
CMATT	Coalition Military Assistance and Training Team
CMH	U.S. Army Center of Military History
CONUS	Continental United States
COSCOM	Corps Support Command
COTS	Commercial Off The Shelf
CPA	Coalition Provisions Authority
CTF	Combined Task Force
DCAA	Defense Contract Audit Agency
DCG	Deputy Commanding General
DCSPER	Deputy Chief of Staff for Personnel
DESC	Defense Energy Support Center
DISCOM	Defense Information Systems Command
DLA	Defense Logistics Agency
DOD	Department of Defense
DPO	Distribution Process Owner
DS-Plus	Direct Support-Plus
DTRACS	Defense Transportation Reporting and Contract System
EAB	Echelons Above Brigade
ECM	electronic counter-measure
EDC	European Distribution Center
EOD	Explosive Ordnance Disposal
EUCOM	United States European Command
FAST	Field Assistance in Science and Technology
FBCB2	Future Battle Command-Brigade and Below
FCS	Future Combat System
FEDEX	Federal Express
FMS	Foreign Military Sales
FMTV	Family of Medium Tactical Vehicles
FOB	Forward Operating Base
FOD	Foreign Object Damage
FORSCOM	U.S. Army Forces Command
FRA	Forward Repair Activity
FSR	Field Service Representative
GAO	General Accounting Office
GDLS	Germersheim Depot Life Support
GSCE	General Support Center-Europe
GTN	Global Transportation Network

GWOT	Global War on Terrorism
HAZMAT	Hazardous Materiel
HEMTT	Heavy Expanded-Mobility Tactical Truck
HMMWV	High Mobility Multi-purpose Wheeled Vehicle
HQDA	Headquarters, Department of the Army
HSC	HMMWV Service Center
HSV	High-Speed Vessel
IAVA	Information Awareness & Vulnerability Assessment
IBCT	Interim Brigade Combat Team
IED	Improvised Explosive Device
IMA	Installation Management Agency
IOC	Industrial Operations Command Initial Operating Capability
IPDS	Inland Petroleum Distribution System
IRF	Immediate Reaction Force
ISB	Intermediate Staging Base
ITV	In-Transit Visibility
JDLM	Joint Development Logistics Module
JMC	Joint Munitions Command
JTAV	joint total asset visibility
KCIA	Kuwait City International Airport
KFOR	Kosovo Force
LAO	Logistics Assistance Office
LAR	Logistics Assistance Representative
LCOP	Logistics Common Operating Picture
LOGCAP	Logistics Civil Augmentation Program
LOGSA	Logistics Support Activity
LMI	Logistics Management Institute
LMP	Logistics Modernization Program
LMSR	Large-Medium Speed Roll-on Roll-off
LNO	Liaison Officer
LSE	Logistics Support Element
LSE-SWA	Logistics Support Element-Southwest Asia
LSV	Logistics Support Vessel
MCT	Movement Control Teams
MEU	Marine Expeditionary Unit
MHE	Materiel Handling Equipment
MI	Military Intelligence
MIT	Massachusetts Institute of Technology
MLRS	Multiple Launch Rocket System

MMCS	Multi-Media Communications System
MNC-I	Multi-National Corps-Iraq
MNF-I	Multi-National Force-Iraq
MP	Military Police
MPH	Mobile Parts Hospital
MPSRON	Maritime Prepositioned Squadron
MSC	Major Subordinate Command
MSC-K	Materiel Support Center-Korea
MSE	Mobile Subscriber Equipment
MTMC	Military Traffic Management Command
MTOE	Modified Table of Organization and Equipment
MTS	Movement Tracking System
MTSC	Mobile Tire Service Center
MWO	Modifications Work Order
NAMSA	NATO Maintenance & Supply Agency
NATO	North Atlantic Treaty Organization
NBC	Nuclear, Biological, Chemical
NCO	Non-commissioned Officer
NIPR	Non-secure Internet Protocol Router
NMC	Non mission capable
NMP	National Maintenance Program
OEF	Operation Enduring Freedom
OEM	Original Equipment Manufacturers
OIC	Officer in Charge
OIF	Operation Iraqi Freedom
ONS	Operational Needs Statement
OPM-SANG	Office of Program Manager, Saudi Arabian National Guard
OPTEMPO	Operations Tempo
OSC	Operations Support Command
OSD	Office of the Secretary of Defense
PACOM	Pacific Command
PCO	Procurement Contracting Office
PEO	Program Executive Office
PIR	priority intelligence requirements
PLL	Perscribed Load List
PLS	Palletized Load System
PM	Program Manager
PM BCT	Program Manager Brigade Combat team
PMND	Polish Multinational Division
POL	Petroleum, Oils, and Lubricants
POM	Program Objective Memorandum
RDEC	Research, Development and Engineering Center

RDECOM	Research, Development, and Engineering Command
REF	Rapid Equipping Force
RF	Radio frequency
RFI	Rapid Fielding Initiative
RMS	Rapid Manufacturing System
ROM	Read Only Memory
ROWPU	Reverse Osmosis Water Purification Unit
RPG	Rocket Propelled Grenade
RSOI	Reception, Staging, Onward Movement, and Integration
RTCH	Rough Terrain Container Handler
SAE-A	Security Assistance Element-Afghanistan
SARSS	Standard Army Retail Supply System
SAS	Systems Acquisition Support Office
SASO	Stability and Support Operation
SBCCOM	Soldier Biological Chemical Command
SBCT	Stryker Brigade Combat Team
SDDC	Surface Deployment and Distribution Command
SDS	Standard Depot System
SECDEF	Secretary of Defense
SEE	Small Emplacement Excavator
SIPR	Secure Internet Protocol Router
SMC	Supply and Maintenance Command
SOCOM	United States Southern Command
SOF	Special Operations Forces
SOSC	Special Operations Command
SOW	Statement of Work
SRA	Special Repair Authority
SSF	Single Stock Fund
STAMIS	Standard Army Management Information System
STRICOM	Simulation, Training, and Instrumentation Command
SWA	Southwest Asia
TAC	Tactical Address Code
TACOM	Tank-automotive and Armaments Command
TACSAT	Tactical Satellite
TAP	Team Armor Partnership
TARDEC	Tank-automotive and Armaments Command Research, Development and Engineering Center
TCN	Transportation Control Number
TDA	Table of Distribution and Allowances
TDC	Theater Distribution Center
TECOM	Test and Evaluation Command
TF	Task Force
TFRP	Theater Fleet Refurbishment Program
TMDE	Test, Measurement, and Diagnostic Equipment

TO	Task Orders
TOE	Table of Organization and Equipment
TRADOC	Training and Doctrine Command
TRANSCOM	Transportation Command
TRM	Training Resource Module
TSC	Theater Support Command
TSV	Theater Support Vessel
UAH	Up-Armored HMMWV
UAV	Unmanned Aerial Vehicle
UN	United Nations
USAF	United States Air Force
USAR	United States Army Reserve
USARAK	United States Army, Alaska
USARDSG	United States Army Research and Development Standardization Group
USAREUR	United States Army, Europe
USAR-J	United States Army, Japan
USARPAC	United States Army, Pacific Command
USASAC	U.S. Army Security Assistance Command
USFK	United States Forces, Korea
USMC	United States Marine Corps
USN	United States Navy
VIPR	Vendor Initiated Parts Resupply
VRIP	Vehicle Readiness Improvement Program
VSAT	Very Small Aperture Terminal
VTC	Video Teleconference
WIN-T	Warfighter Information Network-Tactical
WMD	Weapons of Mass Destruction
WRM	War Reserve Materiel
WRSA-K	War Reserve Stocks for Allies-Korea

INDEX

This page intentionally left blank

DISTRIBUTION LIST

U.S. Army Center for Military History
ATTN: DAMH
103 Third Avenue
Fort McNair, DC 20319-5058

U.S. Army War College
122 Forbes Avenue
Carlisle Barracks, PA 17013-5050

U.S. Army Heritage and Education Center
950 Soldiers Drive
Carlisle Barracks, PA 17013-5021

U.S. Military Academy
Department of History
West Point, NY 10996-1793

U.S. Army Materiel Command
ATTN: AMCCG
9301 Chapek Road
Fort Belvoir, VA 22060-5527

U.S. Army Field Support Command/Joint Munitions Command
ATTN: AMSFS-HI
1 Rock Island Arsenal
Rock Island, IL 61299-6000

U.S. Army Aviation and Missile Life Cycle Management Command
ATTN: AMSAM-GS-H (Building 5300, Room 5135)
Redstone Arsenal, AL 35898-5010

U.S. Army Communications-Electronics Life Cycle management Command
ATTN: AMSEL-PE-OD (Building 1207)
Fort Monmouth, NJ 07703-5020

U.S. Army Chemical Materials Agency
ATTN: AMSCM-D
5183 Blackhawk Road
Aberdeen Proving Ground, MD 21010-5424

U.S. Army Research, Development, and Engineering Command
ATTN: AMSRD-CIH (Building E5027)
5183 Blackhawk Road
Aberdeen Proving Ground, MD 21010-5424

U.S. Army Tank-automotive and Armaments Life Cycle Management Command
ATTN: AMSTA-CS-P (History, G5), Mail Stop 432
6501 E. 11 Mile Road
Warren, MI 48397-5000

U.S. Army Security Assistance Command
ATTN: AMSAC-SA (Building 219)
5701 21st Street
Fort Belvoir, VA 22060-5940

U.S. Army Armament Research, Development, and Engineering Center
ATTN: AMSRD-AAR-AO (Building 2)
Picatinny Arsenal, NJ 07806-5000